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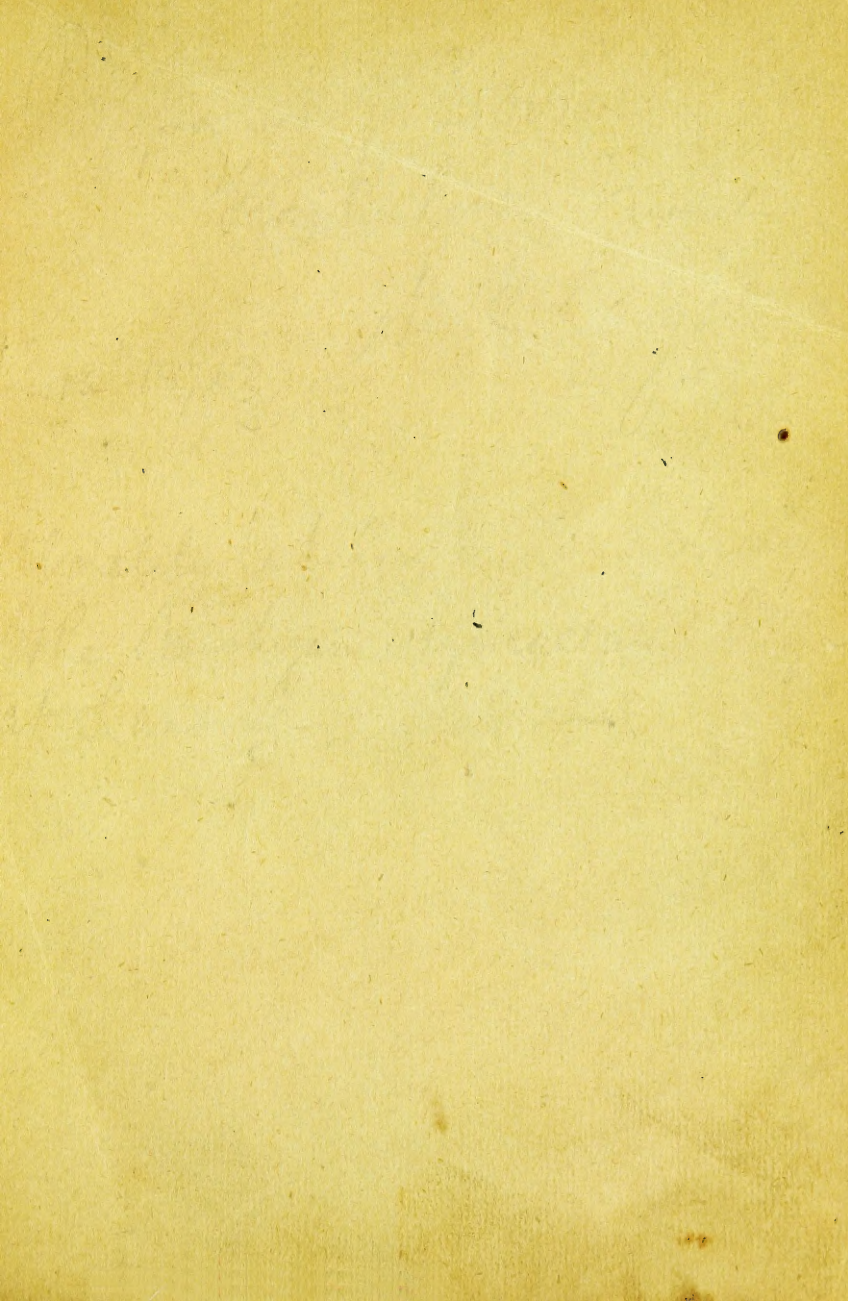
EVERETT FRANKLIN PHILLIPS

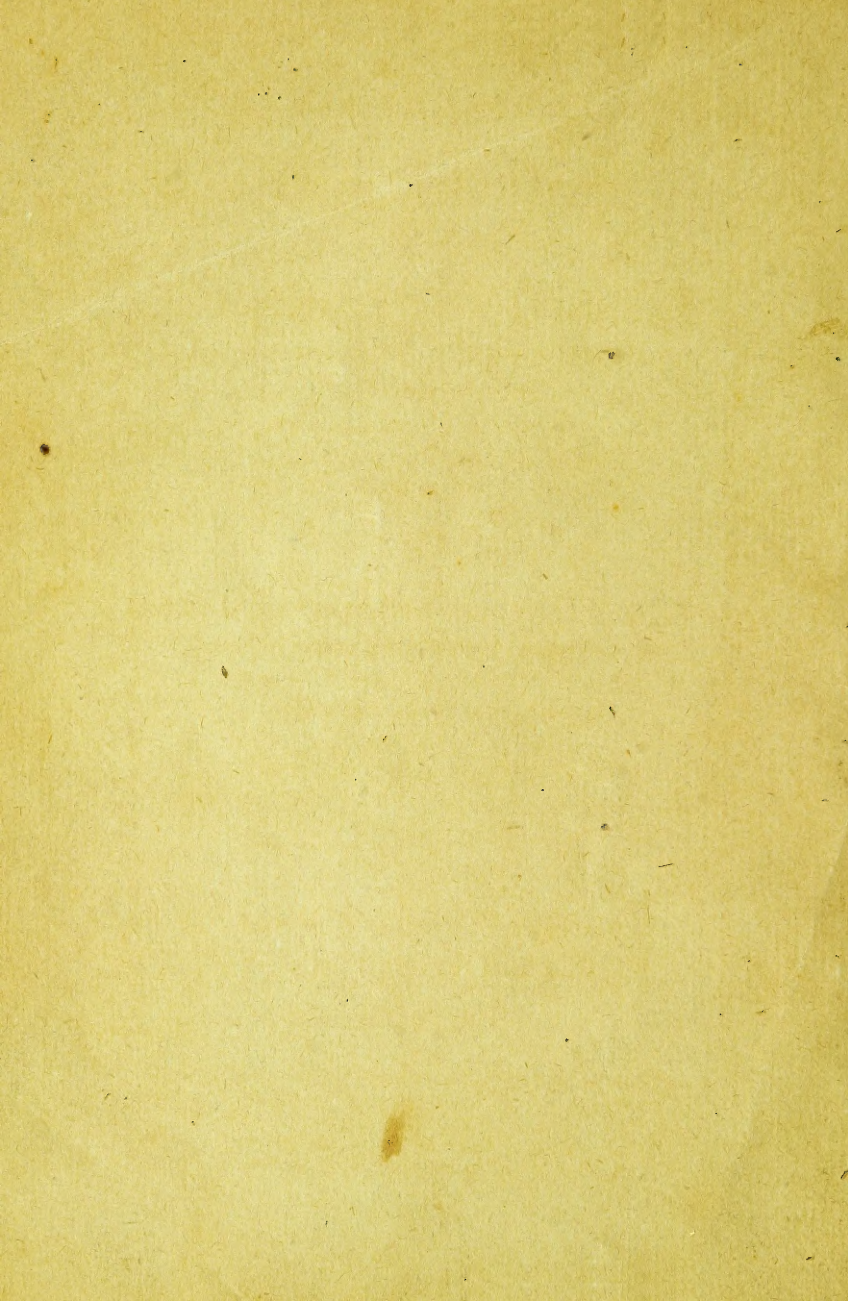
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A profitable instructi-
on of the perfite ordering of
Bees, with the maruellous nature,
propertie, and gouernemente of
them : and the necessarie vses
both of their Honie and waxe,
seruing diuersly, as well in
inward as outward causes:
gathered out of the
best writers.

To vvhich is annexed a proper Trea-
tise, intituled : Certaine husbandly coniec-
tures of dearth and plentie for euer,
and other matters also meete
for Husbandmen to
knowe. &c.

By THOMAS HILL Londoner.

Imprinted at London, by
Henrie Bynneman.

ANNO. 1579.

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The Authors out of the
which this Treatise is
gathered.

E 1072

C. Plinius.

Aristotle.

Albertus.

M. Cato.

Iunius Columella.

M. Varro.

Palladius Rutilius.

Theophrastus.

Guilhelmus de Conchis.

Galen.

Paule Aegineta.

Cornelius Agrippa.

Hieronimus Cardanus.

And sundrie others.

To the worshipfull maister M.

Gentleman, Thomas Hill vvisheth all

health and felicitie.



S it hath beene, and is yet (vvorshipfull Sir) a trade commonly vsed among most men, to choose out from a greate number, some one, vnder whose name and title they may publishe their workes: Euen so I (following the steps of the learned, though in all other poyntes most inferiour) hauing finished this little treatise of Bees, and ca-

sting with my selfe to whome I mighte presente it, founde my selfe much bounden vnto your worship, both for your gentlenesse which I haue of late tasted, and also for youre friendship which I finde alwayes readie towards me. And therefore hauing none other wayes to recompence the least parte of youre curtesie and gentlenesse, thought it best to gratifie youre worship with such a simple gifte as mine abilitie will suffer me to bestow on such a friend. And although Sir this Treatise is farre dissonant from youre studyes, yet considering your earnest desire to knowledge and learning, and agayne pondering the pleasantnesse of the matter, thoughte this might be made a recreation for your grauer studyes. For when your mind shall bee searching for profound reasons, and oppressed with deepe cogitations, then taking and reading this little Pamphlet, it will bring a forgetfulnesse vnto your former weerynesse, and cause a newe delighte vnto your mind: For heerein may you see, first the marvellous gouernement of the Bees, through the onely instincte of nature, as in theyr obedience to their King, and other officers, in punishing the ydle loyterers, in cherishing the true labourers in theyr manner of fighting, with suche like a greate many, as it is wonderfull to reade, and almost vncredible to belecue: secondly, the liuely effectes and commodities that arise of theyr Honie and VVaxe. And lastly, howe profitable they are for common wealth, and howe necessarie for mans vse, I mighte heerespeake muche in the prayse of the Bee,

Aa.ij.

which

The Epistle.

which all I will omitte, seeyng onely myne intente is to shewe my
selfe myndfull of your good turnes and benefites, desiring you to
take this in good parte, whyche proceedeth from a well willing
minde. And I am sorie that at this presente I had none other matter
more worthy to haue gratified your worship withall: but that
whiche wanteth in power, aboundeth in good will. Thus
troubling your worship no longer, I commit you
to the keeping of the Almighty, praying
him to increase in you all vertue
and godlynesse, and to
grant you the long
yeares of Ne-
stor.

Yours most bounden
Thomas Hill.



The Preface into the instruction of Bees.



Although (gentle Reader) I haue not
giuen thee anye labour of mine owne,
but rather haue collected the sayings
and writings of manye aunciente au-
thours, yet I trust they shall be well
accepted of thee without offence. For as he that setteth
forth vnto the view & reading of all men such know-
ledge, as by his long study & experience he hath gotten,
is worthy to haue his due reward of commendation:
euen so he is not to be discōmended, who painfully re-
uoluing the bookes and volumes of many and diuers
ancient writers, reduceth thē into one little Treatise,
for the commoditie and profyete of the simple and vn-
learned sorte, for whose onely sakes I haue trauelled
in the translation of this worthy matter, touching the
right vsage and handling of Bees: a thing very rare,
and seloome seene in the Englishe tongue, and yet ve-
rie profitable for a common wealth, and commonlye
vsed among the poore husbandmen, though not in e-
uery poynt as they ought to be, yet according to theyr
knowledge and experience. But I, to the intente that
a further learning mighte be added to their skill, haue
so trauelled therein, that I trust their knowledge shall
be increased, & such as haue no knowledge at all, may
be instructed without any other teaching. I haue ioyn-
ed this little Treatise vnto my booke of Gardening,
for that most men do ioyne thē both together, as whē
they place their Bees in their Gardens, whereas they
may with lesse paine and easilier, gather of the sweete
smelling flowers, their Honie, and Ware. And for all
these

The Preface.

these my paynes gentle Reader, I craue nought else
of thee, but to giue me that which of dutie in a maner
I ought to haue, for if thou doest receyue any commodi-
tie or fruite eyther by this, or by my other Treatise
hereto annexed, whiche hath to name the Husbandly
coniectures, with sundry rules of Philosophie, then giue
me the reward of thy good report, and friendly accep-
ting of these two Treatises, and if not, yet accept mine
endeuours in good part, which be meant to do thee
good. And thus leauing (gentle reader) to
trouble thee farther, I commit thee to
God, who giue thee the furthe-
rance of knowledge, both
in these and all other
needefull artes.

(::)



A necessarie Table setting forth the contents of these two Treatises.

These treated of in the first Treatise.

- W**Hy Bees are named to be crested or parted betweene, or as it were ringed or rather plighted: what worke the swarme new gathered in the Hiue firste taketh in hande: and whether they may liue after their stings be gone. Cap. j.
- V**Who first taught the preparation and increasng of Bees, and found out the vse of honie. cap. ij.
- H**ow Bees do naturally ingender. cap. iij.
- O**f the vnperfit Bees, which men properly name drone Bees. ca. iij.
- V**Whether the Bees draw breath, or haue any bloud in them. cap. v.
- O**f the great vtilitie and profit of the Bees vnto mans vse. cap. vj.
- O**f the care and diligence of the Bees. cap. vij.
- O**f the maruellous gouernement of the King of honie Bees, and of the obedience which they vse to hym. cap. viij.
- V**What kind of Bees be best, and rather to be chosen. cap. ix.
- V**Where the Hiues of Bees ought especially to be placed. cap. x.
- V**What things Bees do chiefly abhorre, and greatly hate. cap. xj.
- B**y what signes men may knowe when the honie Bees are diseased, and how men may cure them. cap. xij.
- V**What maner of person the keeper of the Bees ought to be. cap. xij.
- B**y what meanes the swarme come forth, may be preserued from flying away. cap. xiiij.
- O**f the Bees new settled in a swarme together, and taken and recovered againe. cap. xv.
- V**Which are the best and fittest hyues for the honie Bees. cap. xvj.
- O**f the cleanness and sweetenesse of the keeper of Bees, and howe hiues ought to be fenced about, and prepared within. cap. xvij.
- H**ow Bees lacking honie may be fed in that present neede. ca. xvij.
- H**ow the dead Bees may be restored to life againe. cap. xix.
- O**f the battell that Bees sometime haue within themselves. cap. xx.
- H**ow Bees lost, may be recovered and found againe. cap. xxj.
- T**hat the Bees sting no person coming neere to their hiues. cap. xxij.
- V**When and how the hiues ought to be gelded. cap. xxij.
- V**What the honie is, and how from the hiues the same may be prepared to vse. cap. xxiiij.
- V**Which

The Table.

VVhich honie is accounted best.	cap.xxv.
Of the venomous honie, and of the wōderful hony of Creta.	ca.xxvj.
Of the miraculous worthinesse of honie.	cap.xxvij.
How profitable the vse of honie is in medicine.	cap.xxviii.
Of the drinke of hony whiche they call the Mulse water, or sweete water of the Romaines.	cap.xxix.
Of the drinke <i>Oenomel</i> , which is made of pure wine & hony.	ca.xxx.
Of the singular water of hony gottē by order of distillatiō.	ca.xxxj.
Another maner of distilling the hony more at large taught.	ca.xxxij.
The maner of distilling a water of hony named the <i>Quintessēce</i> .	ca.33.
The maner of drawing and making waxe of the combes.	cap.xxxiii.
VVhat waxe is best allowed, &c.	cap.xxxv.
Of the great cōmoditie and benefite of waxe in medicines.	ca.xxxvj.
Of that whiche is a stay of the combes, and made for a defence of Bees.	cap.xxxvij.
How to make wave white.	cap.xxxviii.
How to make red waxe.	cap.xxxix.
How to draw a profitable oyle out of waxe for sundry vses.	cap.xl.
Another way of drawing the oyle of waxe most noble, and dothe maruellously help the cold goutte, the sciaticke, the swelling of the legges, and all other griefes of a colde cause.	cap.xlj.

These described in the other Treatise.

C ertaine Husbādly cōiectures of dearth & plenty for euer.	cap.j.
An euerlasting Prognosticatiō of the state and cōdition of euery yeare, by the only calēds of Ianuary, writtē by the anciēt & learned <i>Leopol. Aust.</i> & other for the cōmodity of the wise husbādmē.	ca.ij.
How to foreknow the state of the yeare by the only rising of the dog starre, out of the husbandrie of <i>Diophanes</i> .	cap.iiij.
Other profitabl instructiōs, right necessary for husbādmē to know.	c.4.
A most profitable rule for the preservation of mans health, throughout the twelue monethes of the yeare, after the minde of diuers learned men of the Vniuersitie of Padua.	cap.v.
Of the falling sicke on any of the weeke dayes, out of that auncient Phisition <i>Hypocrates</i> .	cap.vj.
Of those manifest signes, which declare raine to follow.	cap.vij.
Of those manifest signes which declare sayr wether to follow.	ca.viii.

¶ The firste Treatise setteth foorth the
strange gouernmēt, propertie, and benifite
 of the Bees, vwith the commoditie of their Ho-
 ny and Waxe, whiche serue vnto many good vses, aswell
in outward as inward causes applied, gathered out of Pli-
 nie, Albertus, Varro, Columella, Palladius,
 Aristotle Theophrastus, Cardanus,
 Guilielmus de Conchis, Agrip-
 pa, and diuers other sin-
 gular Authours.

¶ Why Bees are named to be creasted or parted betweene,
 or as it were ringed, or rather plighted. What work the
 swarme newe gathered in the Hiue, first taketh in hande,
 and whether they maye lue after their stings bee gone.
 Cap. first.



LINE nameth Bees Cleft beasts, bicause of
 the diuision or parting betwene of the head
 & shoulders: and Aristotle nameth the plighted
 or ringed, in that their bodies are diuided with
 plights and rings. And most men know, that
 the Bees haue neyther sinewes, bones, fleshe,
 gristle, backe-bone, nor fat, but are only created of a certaine
 mixture, being a meane between these, and hauing a very few
 intralles. And againe, no man needeth to doubt, but that the
 Bees be a kinde of beasts, greatly to be set by for mans vse, &
 for mans prouision, are nourished of the aire, passing throughe
 the diuided places, which they by great diligence and care pre-
 serue from being stopped, for as soone as they be stopped, they
 shortly after die, like as the same we may learne, when anye
 happeneth to fall or light into Dyle, which straight way after
 die, throughe the Dyle stopping then their powers. They haue
 and fly with foure wings, that they maye the better carrye in
 their bellies the stings of reuengement. For when two of the
 strue together in fight, then do they hold and keep their stings

in their mouths by a greedy desire, or for eagernesſe ſake. Now after the ſeauen ſtarres named Vergiliae, be once riſen in ſight about our horizon, then do they hyde the in their proper holes, ſo that they go ſeldome after abroade, untill the Beanes doe bud, and if they happen to beginne at any tyme to flye abroade when as a ſayre daye moueth them ſorwarde, then lacke they no ſuche dayes afterwarde, but occupy themſelues. And firſte they prepare and make their combes, which they faſhion into apt houſes, or rather celles of ware, after this they haue pong, and then beginne they to gather honny. They liue alſo the longer by hauing their ſtings, for that once gone, or taken away, they dye forthwith through the lacke of their intrailles, whiche they loſe together with their ſtings.

¶ Who firſt taught the preparation and increaſing
of Bees, and founde oute the uſe of
Honny. Cap. ij.

The reporte goeth, that one Ariſtomachus firſt founde out
and taught the increaſing of Bees, whome Plinie writeth
to be ſo earneſt in the ſame, that ſetting apart al other affayres,
he only ſtudied night & day how he might beſt intreate and uſe
Bees, according to their kinde. But others aſcribe this inuen-
tion to one Thafſius, who (as they ſaye) deſerued no leſſe com-
mendation, both for his diligence and ſkill among Bees: but
this he ſpecially followed in the field, and that farre from the
Tolone. And of this the common people (as by a nickname) no
more named him Thafſius, but Agrius, for his wilde or rather
ſtraunge life, whiche he then led in the field, whome Plinie
alſo affirmeth to haue written a Booke of the increaſing and
multiplying of Bees. And Columella aſcribeth this inuen-
tion, to the inhabitants of the hill (named Hymetus) being in the
Countrey of Attica, for there (ſaith he,) was one Erichonius,
who taught (as me write) the true and perfect ordering of the.
Plinie againe aſcribeth the inuen-
tion of Honny to one Ariſteus
a man of Athens. Diodorus Siculus in the ſixte Booke of his
works, writeth, that Curetes, a people of Creta, did firſte finde
oute

out the Honey, Macrobius ascribeth the same to one Saturnus. Others to the Thessalians. And many to Melissus, an auntient King of Creta, others to Nassus Liber Pater, thus writing, that Liber hath obtayned the renowne for finding out of Honnye.

¶ How Bees do naturally engender. Cap. iij.

The firste the Bees procede of Bees, by the actuall doing tege^r ther, after whiche they lay egges, sitting vppon them, as the Hens do on their eggs. And when they haue sit on them for the space of .xlv. daies, then do they hatch their yong ones, whiche yong (at the first) come forth, much like to white Worms, except the King, who onely as he is hatched, hath wings. At the firste time, one of them hatcheth five young together, the nexte time fewer, and so fewer & fewer, vntill she cometh to one at a time, bicause the abundaunce whiche is in them, dothe in the continuance of time weaken. In the time of their sitting they make much noise to gette them heate withall. And aboute the sides of the combes, be sometimes greater Bees bred, which mē for their sound & noise do properly name Tru^peters, and they also haue whole hornes, of which come the bar^darde Bees. There be also other Bees bigger in body, muche like to the Kings, but they be yole, and haue no King, bicause of the heauinesse of their body. All which kindes, Guilielmus de Conchis didde obserue in the Hyues of a certaine Consull of Rome, whiche properly were made of verpe thinne and cleare horne. Some write, that Bees are also engendred and bredde monstrously, and that contrary to Nature, without the mutual coniunction, if that a whole calfe be buried in the earth, and there lye rotting whiles the wind blow out of the Masse, for by that meanes, as writeth Maro, doth the same breede Bees. And not vnlike to this doeth Cornelius Agrippa in his firste Booke de Occulta Philosophia, and Hiero. Cardanus in hys ninth booke of Subtillties write, of a rotten horse do waspes procede: of an Asse, Humble bees: of a Mule, hornettes: of the haire of a woman (hauing then hir motherly courses) Serpēts: and of Creuilles (the shelles plucked off,) Scorpions.

The right ordering of Bees

¶ Of the vnperfect Bees, which men properly name
Drone Bees. Cap. iij.

The Drone B^ees (as writeth Plinie) are vnperfect B^ees, without sting, and the least wea^ry, yet be they ver^ye hea^vy of body, and slow in doing their businesse. They also doe the seruices and trauell^s of the true B^ees, although the right and perfect B^ees doe rule and gouerne them, yea and put them forth most in their laboures, so that if they happen to be slow in their doings, then doe the right B^ees punish them without pitie. Also these doe helpe the right B^ees, so well in their wo^rkes as in their breeding, for y^e the multitude of them, cause the more heat and warmeth together. And howe muche the greater the multitude of them shall be, and so muche more will the increase come of the swarme. When the hony wareth ripe, then are the Drone B^ees driuen forth, and the kinde also of these are onely sene abroad in the Spring time.

¶ Whether the Bees drawe breath, or haue any blood in them. Cap. v.

Now some affyrme, that the clouen bea^st^s draw no b^reth, in that they haue not the fan of the hart, which is y^e light^s or lungs, for as they write, nothing without them can b^reathe. But Aristotle writeth, that the same is possible among B^ees, hauing the sting (although they haue no bladder) to b^reathe by their sting. And the B^ees haue no bloude, because they haue neither hart nor lungs: yet Plinie affirmeth, that nothing done by nature may be thought or iudged incredible: for the same is fully perswaded in wise m^e, that the B^ees haue a certain liuely moⁱsture, like as the Cuttle in the Sea, which hath a kinde of ynke in it, and is as the ynke of it, with the whiche the Diers (at this day) do make their Purple colour.

¶ Of the great vtilitie and profite of the Bees vnto mans vse. Cap. vj.

Great profite ariseth by B^ees, if they be set in a conuenient and fit place, and that both carefully & wisely guided, as
Plinie

Plinie writeth in his 11. booke, where he writeth, that of al other clouen beastes, the Bees to bee principallie cherished, bicause to man vble they gather a subtile and wholsome wyce, beyng very swete, and besides they frame by a maruelous skill and cunning, theyr cotages of ware vnto mans vse, that no wo: kman (be he neuer so ingenious) can do the like. The profite also comming by them in a short time, if the weather hindereth not, is so greate, that they increase in a shoyte time into manye swarmes, which swarmes againe increase others, so that the firste swarmes increased, they especially thrust forth from them in the moneth of May, or June, by whych meanes they cause a great increase of the. As Varro affirmeth the same of two head Gentlemen in Spaine, which only by the means of their Bees, gayned yerely 10 thousand pound (but I rather thinke five thousand pounce, which also is very much) yet here is to be noted, that the swarmes of fyre yeares olde, doe seldome encrease after other swarmes of themselves, although in ware they giue a great yelde and gayne to the owners.

¶ Of the great care and diligeuce of the Bees. Cap. vij.

¶ If certain Bees as the skillfull practisers do write, stand in y day time at the mouthes of y Hyues, diligently loking to their businesse, like warders placed at the gates of a Castell, that they maye so defend in safegarde whom they will within. In the night time they settle theselues to rest vnto the morning, vntil one of them by humming twice or thyece about, doeth so wyre them forward to flye out after the other. For if they happen to keepe themselves in the morning within the Hyues, the doth the same declare a tempest to insue that daye. But being a cleare and sayre morning, then do they flye forth and retorne againe to their Hyues, laden with the substance of the floures on their legges, for their businesse, and this especiallye doe the yonger Bees, so that the other Bees besides do eyther carrie the water in their bills, or on the soft moistnesse of the whole bodye. The elder Bees remayning still within, do also follow their

businesse, as in diligētly laying vp, and aptly dressing the same, as they wold dispose their kindly foode. Such as be sluggish & not labouring they diligently note, which for their sluggishnes, they bitterly punish to death.

And flying abroad in a mightye winde, they marnelouslye stay and guyde themselves, by waying their bodies down with little stones, carped in their legges. They at the euening coming to rest, do make lesse and lesse noyse in the hyue, vntill one of them flyeth about, which by a like order as he moued them forwarde in the morning, euen so by the same noyse and humming doth he procure them to take their rest, and to be all silent within the hyue. If the Bees happen to scatter in their flying abroad, then do they call and gather them together into a swarme, by the helpe of making a shrill sounde, eyther with pā or bason, or other loude cymball. They also followe their king whether soeuer he taketh his flight, who being wearie, and not further able to flie, they carrie hym betwēne them.

Wherfore that the king may not often attempte forth with the swarme, for feare of losing them, the skilful practisers wil, the wings of the kings be broken off. Whiche feeling himselfe thus depriued of his wings, will not after attempt to flye forth of his boundes, but remayning still within, will so cause the other Bees to abide continually with him, not leauing the hyue at any time after. They also haue counsels priuily and rulers among them.

And Aristotle declareth the Bees to be the cleynest amongst all other beastes, bycause in flying abroad, they shed then their dung from them, leasse anye sauour or stincke of their dung be felte in their cotages or hoales. If these want honny at anye time, then doe they eyther kill, or dyne quite away the drone Bees.

¶ Of the maruellous gouernement of the kings of honny Bees, and of the obedience which they vse to him. Cap. viij.

Nature hath not onely committed hir lawes to booke, the which men may lerne by, but hath especially set forth conditions and properties, as for an example of the lyke, by the bees, whose kings for doubt of reuenging, haue by the prouidence of nature no stings. Whereby is to be vnderstanded, that the kings ruling in power, thorough the lacke of their stings maye be by that meanes the slower to hurt, and offer reuengemente. Yet some affirme the kings to haue stings, but they suppose them not to vse their stings. And of this Plinie maketh a doubt whether the king be armed as the other bees, or lacketh a sting. Which Columella putteth out of doubt, writing of the king that he hath no sting, vnlesse any perhappes thinketh that big head as it were, whiche the king carrieth in his belly, to be his sting, with the which at no time they vse to sting or hurt anye. This king only do Bees reuerence, and honoz him in such sort, that any of them is obedient and very ready at his bidding, to do whatsoeuer he assigneth them vnto. Also this obedience and seruice whiche they vse to their king, they do not the same for feare of punishment, but onely of a loue which they owe vnto him. Yet they punish one another in such sorte, that after their stings be lost, they dye forthwith. Aristotle writeth of two manner of kings, the one as he affirmeth to be red, which he iudgeth the better, the other king black of colour, which he confesseth to be lesser of body yet howsoeuer the kings be, they are not withstanding far bigger of body, than the honny bees, & haue a brighter and goodlier head than the other Bees, yet shorter wings. So that their king created among them, goeth not any time forth of the hie, without the whole swarm folow him. The king flying forth of the hie at anye time, the other folow him, in such sort, that eche rouet to flie next him, & ioyneth to be seen of the king in office, and whersoever the king setteth him or resteth, there be other Bees placed like strong holds or castles about him. About the king also
be placed.

certaine rulers, which wayte vpon him by a dayly anhoritie. If anye happeneth, as writeth Plinie, to breake of the kings right wing, then from the king will not the swarme after departe, as the like was rehearsed afore. Besides these, the Bees haue a maruelous order among them, if their king happen to die, for then they shal bitterly mourne for their king deade, and for the lacke of another, as such whiche cannot be guided and ruled without a king among them, and of this they be in continuall mourning. So that for the time, they carry no swode into theyr hyues, nor flye not forth, but with a sadde bewailing and humming, after theyr king, they heape thicke togyther aboute the deade body, and vnesse another king increaseth by little and lyttle among them, they dye for hunger. Theyr king laboureth not, but as the other flye forth, hee in the meane tyme as an exhorter moueth and encourageth forwarde euerye one to hys worke, by his flying aboute in the Hue.

¶ What kinde of Bees are beste, and rather to be chosen. Cap. ix.

In this point, & for true knowledge of these, doth M. Varro describe those Bees to be best, which be small of body, and diuerse and round, bycause they be earnest in labour, and make a thyme honny, and better endure labour, and gather their honny on hilles, but the worser Bees gather their honny of the garden floures onely, whiche be somewhat long of bodye, lyke to waspes. Virgil doth especially commend the small Bees, beyng somewhat long, light, and cleyly in their businesse, and glistering to golde. So that the greater and rounder Bee, is discommended of all writers. Although the fierce Bees are very ill, yet is their yrefulnesse, a note of the better Bees, whiche may easily be appeased, by the daylye haunting among them, for if the keepers do often handle the hyues, then do they become gentle in a short time.

The Bees also endure if they be diligently looked vnto, for

the space of ten yeares, and beyonde this age no swarme can passe, althoughe the keepers supplie the Hyues yearelye with yong Bées, in the steade of the olde deade, for in the tenth yere, in a manner, of the generall death of them, the vniuersall kinde of the whole Hyue is then consumed. And therefore, that thys maye not happen thzoughe all the Hyues in that place you must alwayes increase your Hyues with yong Bées, which diligently Hyue in the springtime, or beginning of Sommer, when as the swarmes be first and newe thrust forth of the Hyues, and so maye the number of your Hyues be encreased. Agayne some wyte, that in the Countrey of Pontus, the beste Bées be white, bycause they gyue theyr yelde of Honnye thwyce in a moneth. And Gulihelmus de couchis affirmeth the beste Bées to be aboute Thermodoon in Capadocia, abyding in the Earthe, for that these doe buylde and make a tryple yelde of ware, and giue also aboundaunce of Honny.

The foresayde Varro, affirmeth those Bées to be in healthe, which often kepe and be in a swarme together, that be clenly & can do their businesse and worke alike, and that quicke & light in the same, beyng neyther hearie nor foule of body, or appearing duffie, such also which be not ouerleane of body, and that out of any of their cotages no dead bees be carried thence, & forth of their Hyues. For all these notes do declare suche like Bées, to be both euill and vnprofytable. Palladius declareth, that the best Bées may be knowen by the fulnesse or emptinesse of their vessels, for if the Hyues be full, then those Bées doth he best comende, if the Hyues be nothing so full stuffed, those Bées doeth he greatly disallowe. And he also praiseth those Bées, whiche excelleth or passeth others in the loudnesse of humming, or do abound in the great haunte of the swarme, not bzoughte to the Hyues from farre places, so that there maye be such agreement, that they be not after feared alwaye, with the newnesse of the aire and place.

¶ VWhere the Hiues of Bees ought especially to be placed. Cap.x.

ARistotle willetth the Hiues of Bées in the winter time to be placed in a warme place, and in the hottē season of Summer, in a colde place. Palladius Rutilius in his firste Booke of husbandrie teacheth that the fittest place for bées, is that, whiche is in a Garden, not farre or rather neare to the owners house, which by that meanes suffereth not the windes, nor the accesse of thēues or beastes.

Which also nourisheth Trees growing on the Northside of the place, the better to defend the cold ayre from them, & cleare springs or faire riuer water running by. Columella willetth the Hiues to be set open toward the south, far from noyse, & haunte of people and beastes, neyther in a hote nor colde place, for eyther of these do molest and harme the bées. Also that the hyues stande in the bottome of a valley, or if not so possible, then placed neare to the valley, the better and easier for the Bées to bring their swode gathered to their hiues, and in anye case farre from stincking puddels, ditches dung-heapes, and such like filthy stinckes, which greatly annoye and endamage the bées being neare hande to their hiues. M. Varro writing in his second booke vnto a huswife of the countrey, willetth hir also to set the Hiues close to hir house, and vnder some shed, & that far from noyse of fozmes, whiche is mente from a groue or wood, leaste through the wodde or groue neare hande, the same may giue a sounding noyse, like to that whiche men commonlye name the Echo, whiche sounde in verpe deede the Bées do greatly hate. Virgil willetth bushie trees to be planted and stand right befoze their hiues, like as the Beare tree is, the Beach tree, the Wake tree, many kyndes of Apple trees, the birche tree, Holy tree, the Iuy tree also, not allowed for his goodnesse, but bycause it same giueth out muche hompy, and al other trees which beare no bitter floures. And he willetth these plantes and hearbes to grow neare hande, as the Rosemary, the red and damaske Rose, the white Lillie, the Violets, the Floureluce, the Organye, the

Time

Time, the running Time, the Sauery, swæte Malozome, the
 Saffron floure, which coloureth the honny and maketh it smel
 swæte, the beane floures, the French beane floures, the Welly-
 lot floures, the hearbe Baulme, the white Popple floures, the
 Bitonie floures, the Bozage and Buglosse floures, and many
 other swæte and wholesome floures, not here named. But the
 Bore trée, the Masticke trée, the dogge or Gatten trée, or as
 some suppose the long and high chéertrée they greatly hate, for
 hat tasting of the floures of anye of these, they die forthwyth.
 Maro wyllleth standing waters, to be neare to their hives, & so
 shallow, & smal stoncs thzow into thē, may appeare about the
 water, & serue in stæde of byldges for their often recourse to thē,
 & that they may aptly stretch their wings abzoad on the stoncs,
 at the heate of the sun. The stādings for hives ought to be thre
 fote distant from the ground, & wyllly stopped about with red
 clay, least vermine, and Myse cræpe into the hives, and spoyle
 the honny combes. The Hives also oughte to be set a little asū-
 der the one from the other, least by loking into them, you shake
 one another by cleauing togither, and so disquiet the bees nerte
 to, which feare al manner of shaking least the same thzow not
 dōwne their weake wykes of ware. And the mouthes of the
 hives ought to stand somwhat stiper than the back part, leaste
 rain beating in, might not lightly run out again by their entry
 or hole. For remedy of y^e which, some make a coner ouer theyr
 hole y^e better to keepe off y^e weather & raine. And no manner of
 beate so much harmeth them, as doth the bitter cold, & for this y^e
 faces of hives ought to be toward the winter rising of the sun,
 that the Bees may so receiue the warme comfort, in y^e morning
 comming forth, & be the liuelier, for colde doth cause them to be
 sluggish, and for that cause their holes ought to be very narrow,
 that as little colde as is possible, may enter into them, & so nar-
 rowe made, that the Bees within may receiue the encrease but
 of one Bē at once, for by that meanes can neither the Bētfl,
 butterflie, nor great moath enter, to annoye them. Besides for
 their often recourse home, Maro wyllleth to make two or thre
 conummings into the hie, some what distant asunder.

¶ What things Bees doe chiefly abhorre, or greatly hate. Cap.xj.

The bees, is that (named the *Eccho*) vngratefull or much displeasing, which as *Plinie* writeth, doth greatly feare them, through the straunge sounde rebounding againe, and the miste also doth muche molest and trouble them, besides the spinner through hir web hanging downe before the *Hive*, and the sluggish butterflie (which *Plinie* nameth dishonorable) that is two wayes pestiferous, as the one, when he spoyleth the ware, and dungeth within the *Hive*, and the other, breeding Magottes or little wormes within the combes. They greatly hate oyle, like as all the kindes of the other Bees doe, and a stinking sauoure, which evidently appeareth by that kind of herbe named *Mugworste*, that they especially hate, bycause the same is of a stränge stinke to them. The hornettes also of the like sorte creast, but bazer of kynde, they greatlpe feare, for that to the Hornets the Honey Bees are a speciall fode. Also they be meate to swallows to sparrowes, and to all other small byrdes.

The frogs &c Ides, they do greatly feare, which only lye in waite for them, both in *Parishes*, running springs, shallowe waters, and little ditches, and the like doe the *Toades* lye in waite for the Bees, whiche destroye manye of them. And the sheepe doe greatly trouble the *Hornye Bees*, if so be they happen to fall or lighte into the *Wool* of theyr backes, out of whych, they cannot easylpe wynde or gette themselves againe.

And if any happeneth to boyle or seathe *Riuer* *Creaulles*, or sea *Crabbes* neare to the *Hives*, and that the Bees feele the sauour therof, they die forthwith.

By

¶ By what signes men may know, when the honny Bees are diseased, and how men may cure them.. Cap xij.

This is a speciall argument and note, that the Bees, are diseased, if that they fly scattering in the swarine, if they keep not their proper colour, but be (as it were) of a strange and contrarie colour: if they also are ouer leane, if they appeare dustie and hairy, and that out of their cottages bee dead Bees carryed thence. When al these notes and signes are espyed in the Bees, it is then highe time to seeke remedye for them, leaste helpe (by longer running) be sought too late. Therfore Palladius willethe to minister the kernels of Pomegranats, brused and mixed with swæte and pleasaunt Wine, and the same powred into the channels or gutters of halfe canes, set nere to y^e mouthes of hives, or honny, with Rose leaues well beaten togither, and so ministered to them, or the berries of the Saruice tree brused, and mixed wth Honny: for lacke of these helpes, a man may make a smoake of drie Dre or Cowe dung, whiche smoake muche delygtheth and comforteth them, so that the same be often vnto Harvest.

But if throughte the Waggots or little woormes of the Butter-flies the Bees be diseased, Rucilius then iudgeth it beste, to set a brassen Candlesticke, or suche like vessel, with lighte burning in it at Eueing, within the hyue, that to the same light (y^e Butter-flies gathering, and flying about) may so fall down into it, and be destroyed.

Aristomachus writeth, that the diseased Bees maye bee couered in this maner, if that all the corrupt combe within the hive be taken forth, and freshe fowde anewe put in of the whole. and the hive after smoaked within. Also he affyrmeth, that Rosemarie sodden with water and honny togither, and beyng colde, poured into halfe canes or Elder stiches, made hollow like gutters, and the same set by the mouthes of the hives, for the Bees to drinke on, doth recouer the Bees again. Hyginus affirmeth that

that eyther the Dre oz mans vyne set in like manner (as about saide) by the mouths of the hyues, doth also recouer the diseased Bées. Nowe all these, and suche like muste the keeper of the Bées doe, whiche is both sober and chaste, and feedeth not vppon sowre oz tarte meates, nor filthy oz strong of saour, nor any salt meates.

¶ What manner of person, the keeper of Bees ought to be. Cap. xiiij.

THE Bées for that they muche abhorre all filthye stinks and smells, Palladius willethe the keeper of them to eschewe diligently al strong and yll smelling sauoures, one also that delighteth to be chaste of body, and free from filthynesse, among these not breathing sowrely, oz of a stinking breath, not sweating, nor saouring of sweat, not one besides of wicked conditions, oz suche a person as standing among the flight of the Bées, both not earnestly mone and procure them to fly to him, oz as one stinged endeuoreth to defend himselfe from them, but rather as a flatterer among his acquaintance, and children, hath learned to entreate, and please the Bées by a more gentle manner. He also whiche mindeth to haue also in a readinesse the hives vnto his vse, in which he may receiue forthwith the rude youth of the swarmes put forth, which if they be not diligently preserved, they flye quite awaye at the full heate of Summe. But how these hives ought aptly to be prepared, shall hereafter be taught in the sixteenth Chapter.

If the Doyre Bées, oz Bées without King, be ouer manye in the Hiu: and that you woulde gladly ridde them forth, then do on this manner: first take and plucke off the wings of one of those Doyre Bées, which lay oz put within the Hiu, and incontinent the Honny Bées espying the same, will fall vppon the other Doyre Bées, and both kill and drie them quite away.

¶ By what subtil meanes, the swarmes come forth, may be preferred from flying quite away. Cap. xliij.

BALLADIUS in his second Booke writeth, that y^e swarms of the honny Bees fly away especiallye in the moneth of June. But with vs the same oftner happeneth in the moneth of May, as hath bin noted by sundrye, diuerse times, especially if the yong Bees be sounde and hartie within the Hyues. Therefore the keeper muste diligently looke to the Hyues, and at no time be absent, especially when the yong Bees increase and abound in the Hyues, for if they be not then carefully looked vnto, and stayed by the diligence of the keeper, they al fly quite away. For such is the nature and propertie of the Bees, that as soone as the swarms of the yong Bees, are bzied with the things, and that they be strong & able to flye away, then as disdayning the swarms of the olde Bees, they seeke the more gouernment. For that they be suche liuing things, that delight to rule alone, not seeking ayde and counsell of the elder Bees: and therefore do the newe kings flye forth, with the yong swarmes following them, which for a day or two before their flying away, remaine heaping together before the mouthes of the Hyues, & right vnder the Hyues, so that by their comming forth, and heaping in suche order, they properly shewe the desire of a newe place, and be as yet contented to remaine thereabout, if so be the keeper prouide for them a place and an apt Hue. But if they haue no keeper to looke diligently to them, then as it were by an iniurie repulsed, they after seeke a newe place. That this may not happen, let then the warpe and diligent keeper, looke circumspectlye to the Hyues in the Spring time, aboute the eight houre of the daye, (when as the swarmes are not yet flown away,) that he maye the diligenter marke and see the flying oute and conning in of the yong Bees.

Now the readinesse of y^e Bees in flying away, is known two waies, as y^e first is, whē for certaine daies before, in a maner at y^e setting of the Sun, they plentifully or abundantly gather on a heape righte before the mouth of the Hue, like vnto greate clusters

clusters of Grapes, and doe hang together on heapes one upon another.

The other note is, that when they be minded within three daies after to flye away, they make as mervellous noise and furring to and fro within the hives at evening, as Souldiours at the Alarme within a Castell, whiche you maye easilys knowe, (this readinesse of them) if that you lay your eare to ech hive. And when some of the Bees are flowne awaye, then doe those waite for the others, untill the whole swarme be come together. That the Bees fly not awaye, Plinie teacheth in the .xj. Booke of his Naturall Historie, that the hives ought to be anointed about with y^e iuyce of y^e herb named Balme. Also other affirme, that the swarme to settle and stay againe through the onely throwing of fine duste on them, if so be the same be thrown on light, and that over the bees. Some beside affirme, that the Bees will not flye awaye, if that the dung of the first calfe of any Cowe, be smeared about the mouths of the hives. Plinie writeth, that by the only binding of the fresh white Vine (running in hedges) rounde about the bodies of the Hyves, it stayeth the swarme from flying awaye.

¶ Of the Bees newe settled in a swarme togyther,
and taken or recouered agayne.

Cap. xv.

When the Bees are nowe in a tumulte in the ayre, by throwing fine earth on high over the Bees, or ringing a basen or ketle, they be with the shrill sound made astonied, that they make the soner settle downe neare to the keeper, whiche if the same happen to be on the branch of a tree, or on a graft or ponget, then with a very sharpe sawe, gently sawe that off, and laye it on the grounde, and speedily set a Hivie on the same prepared for the purpose. For by that meanes (without doubt) will the whole swarme flye up to the toppe and head of the Hivie. Yet it often happeneth, that they doe not wholly cleave on a heape to the bzaunch of a tree, but to the stocke or body of the tree, which

by that meanes muste needes be cutte by a greater force, so that not able to be recouered by this meanes, the swarme muste be quickly swæpte off, either with the hand, or with a Gose wing, that they may so fall together into the hīue. If the swarme happen to be clustred together on the top of a tree, so high, that they cannot be climed vnto, to take them downe, then after the shaking of them into the Hīae (turned vpp) either with a pole or high forke, the hīue must speedily be turned down to the earth. And if they be not thus taken or recouered, yet if the King shal be still in the Hīue, then doth the swarme fly in againe, if he remaineth not, then wil none of the swarme abide in the hīue, but flye forthwith vnto the former place. Wherefore, that they may be moued to abide, you muste then spzinckle the hīue with water and hony together, and couer the same within with green pettle, or rather the green fennell, or some such swæte herbe, annointed a little with Hony, and after set at the Euening in their proper place. For the hīue in the day time, after the recouering thus of the Bēes, may not be stirred until the Euening, that the Bēes so quietly resting all that night, may in the morning leisurely go forth. But for thre daies together in a manner, muste the keeper dayly looke, whether the swarme keepeth belowe in the Hīue, so if it doth, then are the Bēes purposed to flye awaye. And if none of al these remedies, may yet moue the Bēes to stay and tarry in the hīue, then be-smoke the hīue with flare, and they will after enter in and abide in the hīue. Which so staying in the hīues, set at the Euening in his proper place. Here learne a farther instruction, that if the swarme of Bēes cannot be gathered and recouered together all at one time then may you gather the swarme at two or more times together, and alwaies put eche part gathered vnder the hīue. If it happeneth that you haue gotten the King, with a part of the swarme, then will all the others sone come to hīue (without further trauaile) of their owne accorde. If the Bēes also be entred into the holowe of a tree, then to the hole, whiche they vse to go in and out at, as their proper dore, sette a prepared hīue, and beneath their hole, neare to the roote and bottome of the hollow (as you can

gesse) boare another bigge hole, that ye may wel put in a smooke of Brimstone to them, whiche may so cause all the Bees to fly out at their hole into the Hiuie, set ouer the mouth of it. For no better deuise or inuention can be had in this matter, than by such a smoake made. If the same hollowe tree be so thinne, that it may easily be sawed asunder, then with a sharpe sawe lette that hollowe parte be cutte asunder, bothe aboue and beneath, and after couering it with a cleane sheete, carrie the swarme home, which at euening couer with a newe Hiuie sprinkled with water and honny mixed together. For so they will tarrye the willinglier, being all shaken forth of the body of the tree, and couered with the Hiuie. Besides the hearbe Bugworste (whiche the Bees by a naturall hatred do abhorre) doth chase them with the onely smell from place to place.

¶ Which are the best and fittest Hiuies for the
Honny Bees Cap. xvj.

ALLADIVS writeth, that the best Hiuies be those, which be made of the barkes and light cozke of trees, bicause they be neither too colde in the Winter time, nor too hote in the Sommer. And of this, those Hiuies whiche be wroughte and made of the small Oser or Willow tree, or of the Wine Sticks knit together, or Canes cleft in the middes (whiche be of like condition to the bark) wroughte close together, and stopped close aboute wyth flockes and clay, tempered together with water and salte, may aptly serue, if you will. But if neither of those fashioned Hiuies like you, then may you make the Hiuies of the woodde of a hollowe tree, or of light bourdes made square, and stowppng somewhat asoze. The worst Hiuies be those, which be made of turses or earth, bycause they be ouer hote in the Sommer, and ouer colde in the Winter. There be other two kinds of hiuies, as the one made of ozie hard Cow dung, and the other of tiles. Of whiche the one doth Cellus rightly condemne, bycause the same is so lightly burned, and the other he alloweth, althoughe he dissembleth the speciall commoditie of it, bycause the same,
if neede

if neede requireth, cannot easily be removed and carried into an other place. And among these, I suppose our forme of Hives here in Englande, are not altogether to be disallowed, although they be in like daunger, to be easily burned, as the other Hives aboue taughte, in that they be made with strawe. But to be brieve, for a greate swarme you ought to haue in a readinesse a greate hive, and for a small swarme a little Hive. And the Hive also oughte to be a foote and a halfe, or two foote high, and in breadth aboue two foote and a halfe, or somewhat larger. Having besides two very small and narrowe holes, somewhat asunder, and so little ought the mouths to be, that neyther Bee, flie, Butterflie, gret Moth, Humble Bees, Cuet nor Mouse may enter in, to spoile the Honny combes. Some suppose, or rather aspyme of experience, that the Bees are delighted with this closenesse, in that they moze ioy to do their works and businesse in the darke, than otherwise.

¶ Of the clenlinesse and sweetenesse of the keeper of Bees, and howe Hives ought to be fenced aboute, and prepared within. Cap. xvij.

The keeper of Bees which mindeth to handle and loke into hives, ought the day before to refraine the veneriall acte, not a person fearefull, nor comming to the hive with unwashed handes and face. And one that oughte to refraine in a manner from all smelling meates, poudred meates, fryed meates, and all other meats that doe stinke, like as the Leakes, the Onions, the Garlike, and suche like, whiche the Bees greatlye abhorre, Besides, to be then swæte of body, and clenly in apparell, minding to come to their hives, for in all clenlinesse and swætnesse the Bees are muche delighted. Nowe thus prepared & in a readinesse, open þ hives first of the Bees, about the. viij. or x. day of Aprill, being then a cleare & warme day, & purge the hives of all such filth which be gathered in them all the winter before, like as Spiders webs, which oughte especially to be wiped awaye, bicause they corrupt the combes, not with hands, but wth a gowse wing, the same ought to be done. After that, the Hive oughte to be

be smoaked with Dre or Colwe dung, for in that (as it were, by an affinitie of the kinde) do the Bées greatly delight. The little wormes also, whiche some name Maggots, that bréede in the combes, thzoughe the blowing of the Butterflies, and also the Butterflies ought to be killed and purged oute of the hie. If the combes happen to fall thzoughe infection or corruption in them, then make a smoake with the drie dung and marowe of an Dre or Colwe mixed together, that the saour may go vppe to them, whiche for that time will cure the weake combes, strengthen the Bées, & cause the to worke the lustier afterward. And from the beginning of May, vnto the last of June, y hiues ought then to be diligently looked vnto, that the yong swarmes flye not away. Also from the tenth of June, vnto the tenth of August, the hiues ought to be opened now & then, & to be smokt with such like as afoze is taught. Whiche althoughe it be grievous for the time to Bées, yet the same is very pzoftable, and strengthneth them. And from the beinyng of the Dog dayes, vnto the eighteenth of September, ought the Bées to be carefully looked vnto and defended, from the violence of the Hornet Bées, which often awaite befoze the monthes of the Hiues, to set vppon and eate the Honny Bées. Nowe the keeper in a sayze sunny daye, ought to clenfe the Hiues of al maner annoyances as befoze is taught, and diligently to stop the chynks, or clefts about, sauring the monthes of the Hiues, with Dre dung & clay mixed together. And this ought to be done, for two or thze daies befoze the change of the Mone, the better to defend the Butter flye and others, from creeping in. The Hyues besides ought to haue two bigge stikes cleane scraped, and running a crosse from side to side, and sprinkled rounde about within, and swete and pleasant wine, or else the stikes to be harde rubbed ouer, with the græne braunches of the fennell or other swete smelling herbs. or w a little honny & leaues of the Vere-træ, together, or with the braunches of the herb Lime floueing, or Sanerie, or Maiozame, or the hearbe Balme, and Honny together. Some annoint the stikes and hie within, with the swete cream of the newe Colwe milke, or with water and Honny sodden together,

together, and that sprinkled aboute within the Hyue, that the Bees maye be the rather and soner moued to carrie and dwell still in the Hiuies.

¶ How Bees lacking honnie may be fedde in that present neede. Cap. xviii.

Because the boysterousnesse of the ayre doth sometimes constraine the Bees to abyde in their hiuies, and that they may not only feede of Honny, but at the rysing of the constellation (named Vergilia) they maye be fed and cherished, and the same done in this manner without greate cost. As firste, if you take the number of ten figges, seething them in fyre pintes of fayre conduite or spring water, vnto a pynte wasted, whych after set the one side of the huiue within, laying many smal sticke a crosse ouer y^e Lycour, that those may serue instead of brydgs, the after for them to drinke of the Licour, without drowning in the same. Others wyll soeth Honny and water together, & the same to be poured into dishes set at the one side of the Huiue, in the whiche they will to put fine carded wooll, that the Bees maye the better drinke now and then, and be not cloyed with too much drynking of the licour, by lighting into it. Others take figs & raisos beating the together, and after boyling them in the swete lycour named Cuyte, they poure into dishes, conering y^e same with Dafen strawes a crosse. Others also will to take a little Honny, putting into the same a fewe Date cornes, that the Bees lighting on them, may so kepe their wings from wetting in the licour. Now all these meanes may well suffice to cherish and feed the bees in the Winter time, lacking then fode, beyng set neare to the mouthes of the Hiuies. So that if a longer hunger oppresseth them, then with the hiuies fast by the entring in, set little gutters made of halfe canes, or greate elder stickes cleft, into which poure of the swete licours aboue taught, for by that meanes may they be wel recouered and strengthened in the deepe of Winter, when their fode fayleth them. Some wil to put fresh birdes cleane drowne, or the fleshe of a Henne fine-

Is bred into hives, for the Bees to feede and sucke vpon in the deepe of Winter; & the fine feathers also they will to put into þe Hieue, that they may giue then a warmth to the Bees lying in them. And others also will to put the meate of roasted Chickens into their Hives, to feede and sucke vpon, and not the boanes withall, least the sauour of the bones after the meate eaten off, might annoy the bees by lying still in the hives, in that they so greatly abhorre all sowre and stinking sauours. Also these kinds of flesh ordered (as aboue sayde) may well serue the Bees in another drie Sommer, when as the most floures are then faded or quite gone away. Here note, that in the Spring and Sommer time, the bee-hives ought to be loked vnto thrice in the moneth, gently smoking the Bees, to cleanse the Hives of al maner filth, and to sweepe forth the wormes. Also Menecrates willethe the keeper of Bees, to kill the king blacke of colour, whiche by hys malice disquieteth the other king, and corrupteth the Hieue, in that he flieth out alone, or with a company of þe bees folowing. So by that meanes (as Virgil writeth) shall the battel of Bees be stayed. Palladius writeth, that the swarmes be increased in the moneth of May, and that in the outmost sides of the combes be the drone Bees bred, which ought to be killed, in that those do muche disquiet the rest of the swarme. The Butterflies also do abounde, which he willethe diligently to kill, for their greate annoyauce to the honny Bees.

About the beginning of Nouember ought the Hpyes then to be cleared of their filth, so that at the Winter following they may neyther be remoued nor opened. And this may not be done but in a warme sunny daye, the combes maye not be touched with hands, but with the feathers of a stiffe gosse wing, or such bigge soule. After that to stoppe the chinkes round about wyth Oxe dung and clay finely laboured togither, and to lay strawe thicke ouer the toppes of the Hives, the better to defende the Bees from the cold and tempestes.

¶ How the dead Bees may be restored to life
again. Cap. xix.

The keeper of bees ought to foresee and take heed, that the Bees perish not through ouer great heate, or ouer mighty cold. If at any time by a sodaine sholwe in the seeking for fode, Bees happen to be beaten downe, or nipped wth a sodaine coloe (which seldome so commeth to passe that the Honny bees are so deceyued,) that harmed with the droppes, they lye grouerlyng and flatte on the earth, as dead in a manner, then gather the Bees togyther, putting them into some vessel for the nonce, which after set in a warm chamber or Warloure, & couer warm ymbers, beyng somewhat more than hote, on the Bees, whiche gently shake with the ashes, but in suche sorte that you touche them not wth your hande. And setting the Bees in the sunne, and neare to their hives, they will after recouer, and flie again into their cotages.

¶ Of the battel that Bees sometime haue among
themselues. Cap. xx.

Vergill writeth, that the Bees sometimes minding to fighte, do hastily brust out of the Hives, and as it were in ciuill battels among themselues, do fight lyke strangers one against the other, & smite eagerly in their fight one at an other. If so be one hyue hath especially two kings bred, vp in the same, which very well may be knowne, when as the bees clustered and heaped togyther, doe represente or represses as it were the forme of two beardes hangng downe. Now the readyneesse to fight is knowen, when in the ayre is heard a greate sounde and noyse among the Bees lyke to the manner of Trumpets, whyles they fiercely and cruelly fighte togyther among theselues, & in this battell they glitter with the wings, sharpen the stings with their beakes, beare forth their breastes, and about the king they gather and swarme. So that they shoute wth great

great noyse, flying and dashing together, and that in heapes and rounde companies mixed or ioyned together, and greate is the noyse made among them. And to be shorte, in this strong and eager battell, many of them fall headlong downe, and that thicker then haile stones to the ground.

The kings themselves in the meane time flying in the midst of frontes, doe fight with a fierce courage without themselves, and they also are seene to flie hither and thither among thicke heapes and swarmes of the Bees, (like as valiaunte Captaynes are wont to do in the time of a battell) with their glittering wings and beakes, beating downe of the swarmes, here & there and on eche side of them, of both partes. So that of themselves not grasping oder this eager battell, untill the one part be forced to turne the backe to the other, and flye away with expedition. Wherefore if this doubtful battell in the meane time may be ceased and quieted betwene them, the wise practisers wyl that the keeper of Bees, do stave and appease this boyle of the, by the casting of fine earth over the Bees, whiles they be thus fighting, which (as the wise affirme) of experience doth for the with pacifie the great stomackes and courages of both partes. But if this anayleth not, then with honny and water sodden together, or raysons in like order, or with any other swete licour sprinkled on them, is their furie appeased, whiche doth as it were with the pleasaunt sweetenesse, quiet the irrefulnesse of the warriours, and wyth the same in this controuersie they are maruelously appeased. If neyther of these remedies do yet preuaile, then let the keeper marke diligentely those Bees whycher flyghte in the fronte, and bee moste eager Captaynes, that hee maye kill them with expedition, for by that meanes, and with the other remedies aboue taughte, maye the battells and fight of the warriours be thoroughly ceased.

Now after the Bees are thus quieted, and the swarme settled rounde on some graine bolue nexte hande, then marke whether the whole swarme hangeth downe like a cluster of grapes, whiche so seeing, declareth there to bee eyther one king or two, by good agreement reconciled, whiche let alone

on such wise, vntil they flye backe vnto their proper home. But if the swarme shal be deuided into two or many round clustres, then iudge that there be yet manye Captaynes leste, and that their pre is not ceased: and in those partes, where you especially see the bees to cluster mosse thicke and rounde together, there diligently seeke out the Captaynes. Yet annoynt your hand before with the iuyce of the hearbe Baulme, that touching or handling the Bees, they flye not hither and thither, after which put in your fingers gently, and seuering the Bees asunder, seeke diligently among them, vntil you finde out the author and procurer of the battell, whiche you oughte likewise to kill. Vergill writeth, that the kings sometimes fly forth for a baine delight, to sport them flying in the aire, which you may easily stay and let, if that you pluck of the kings wings, that he cannot afterward flye.

¶ How Bees, may be recouered and founde againe. Cap. xxi.

If it so happeneth that bees are flowne away, & that you be in doubt whether they be lodged neare hande, or farre off. Palladius doth instructe and teache many goodly wayes to finde them againe. First he teacheth to take red leade, or red Oker infused in water, or any other colour, staying, and to carry the same wyth you in a little shallow dishe. Vnto suche a spring or running water as the honny bees haunte, especially in y^e moneth of Aprill. And there sitting downe, awayte the comming of the Bees to drinke, which after they be come, and there drinkyng, stayne in the meane whiles such bees, with your russh coloured redde at the ende, as you may well retche with the same, sitting yet still, and watching the comming againe of those Bees marked to drinke, whiche if they shortlye returne, then is it an euident note and token, that their lodging and cottages be neare hande, but if those Bees are long before they returne and come againe to the place, then maye you suppose and iudge them to be farre off, and the distaunce you may gesse, according to their

long tarrying and some coming againe. That you maye easly fynde the place where the Bees lodge, whether the same bee farre or neare hand, Palladius teacheth the same wittily, in this manner.

First, let he willeth to take one whole ioynt of a bigge cane or Elder Sticke stopped at y^e one end, and the other end left open, to annoynt within, with a lit-le honny, whiche laye neare to that spring or running water, that the Bees daylye haunte vnto.

When Bees resort to the same, and that certayne be entred within the quill through the sauoz thereof, then stop the hole with your thumb, letting one of y^e Bees after ward to flye forth, whiche dyligently marke, and follow that way it flyeth, for it wyll shewe you part of the way to their home. And after you can see the same no further, then quicklye set forth another be, whose flight in like manner marke, and followe after, for that it maye also shewe parte of the way vnto their home. And so let lie the bees by one and one, vntil they bring you vnto the place of the swarme. Nowe if the same place be deepe in the earthe, then with a smoake made eyther of drye flaxe or Brimstone, drive y^e Bees out, and when the swarme is come forth, then ring on a bason or shrill panne, for being by and by feared with the shrill sounde of the same, the swarme eyther lighteth on a yong tre, or on the opener bowe of a bigge tre, which so sounde out, couer ouer with a hieue prepared for the nonce. But if the swarme be placed in the hollowe of a tre, and hauing bowes, or in the stocks of the same tre, then with a betye sharpe sawe (if the meanes of the same will giue leaue) cutte it a sunder. And in such sort, that the parte emptie aboue the bees be first cut, and the parte beneath in which it seemeth the Bees to be lodged, to be like cut a sunder, and the stocke thus cut a sunder, at both the endes, couer with a faire shete, leasse any large cliftes appeare after the cutting, whiche also annoynt with honnye, for the better staying in of the bees, and after carrie the same home, which place by your other hieues making smal holes in y^e same,

for they flye in and out (as afore was taught) in the ordering of the other hives. But it becometh the diligent searcher, to chuse the morning times for y^e finding out of Bees, whereby you may have the space & libertie of the day before you, to finde out y^e resort of Bees. For by looking late after the, it falleth out so, that although the Bees are neare hande, yet because they have then done their busie and careful labour, they flye no longer abroads to seeke foode, nor yet resort to drinke.

Throughe whiche it so cometh to passe, that the searcher after Bees knoweth not then howe neare, or far off, the swarme is from the spring or running water. Some take the ruse of the hearb Baulme in the Spring time, and annoint the same round about the hive, whereby the savour of the mycke may cleave and abide on the vessel, whiche afterwarde being sayde within, sprinkle aboute with a little honny, setting the same hive downe neare to the wodde or groue of trees fast by that spring or water rüing by it, and after the same be filled with a swarme, carry it gently home. Yet doeth not this like, but in such places where the swarmes of Bees do abounde, for that oftentimes it so hapneth, that unlesse the hives be dailye watched, that the goers by do take them away. But to lose sundry hives, gretly hindreth not, so that you may in the mean whiles enjoy one or two of them full.

Howe hitherto hath bene sufficiently taughte, suche remedies and helpes, as necessarily serue, to the taking, and recovering of Bees losse, and otherwise to finde oute straunge swarmes.

¶ That the Bees sting no person, comming neare their Hives. Cap. xxi.

Plinie in his twentieth booke writeth, that the hearb Sperage, bruised and mixed with oyle, and annoynted with the same, both defende the person from being stinged, by comming nigh to their hives. And in his xxvij. booke he also writeth, that

Cap. xxi.

if any happeneth to be stinged by a Scorpion, that he shall neuer after be stinged of any Bée, but yet being stinged, he teacheth to drinke the iuyce of Hearbe-grace and Rue mixed with wine, and to lay the leaues also in plaister forme on the stinged placed. In the 21. booke he writeth y^e like, that bees stings are by nature venomous, against y^e which he teacheth to take & vse the iuyce of Mallowes, or the iuyce of Rue leaues, and to annoint eyther of the two, on the stinged places, as a souerain remedy. And in the 23. booke, he teacheth wyne for a remedy, as boyled with bay leaues, and after drunke. In the 24. booke he teacheth to take a drop of that molten, whiche the honny Bees make at the entrie of the Hiue, to be a like remedy, as of the water Bezoar to be vsed against venemous bites. Auicen in his seconde rule teacheth, that the decoction of the Marsh Mallowes wpyth vineger or wine, and the same anoynted on the stinged places, to be a perfit remedie.

Whiche also in his fourth rule affirmeth, that the Honny Bée hath like dispositions to the waspe, saying that they leaue their stings behinde the: wherfore for remedie of y^e wasps, you may vse those which we haue afoze taught againste the stings of Bees.

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¶ When and howe, the Hiues ought to be gelded. Cap. xxii).

Palladius Rutilius in his first booke teacheth, that the hiues of Bees ought not to be gelded, befoze you will consider and see whether they be ripe, vnto the comming of the true Honny, whyche in a manner (as hee teacheth) commeth to vse in the moneth of Iune, or as others affirme, in the ende of Auguste, vnto the midle of September.

Now there be certaine notes and tokens, by whych we trye and sende out the ripenesse of them, whiche be these, firste if the hiues be ful, then do the Honny Bees bring forth the ydle drone Bees out of the Hiues, and thereto is also hearde within a small or still humming of the Bees for that the emptie cottages of
the

the combs, as they were hollow buildings, do receiue a sound & noise, procured then bigger, so that when there is hearde a big & hoarse sound of þ̄ humming of them, then is it not yet meet to geld þ̄ combs. Varro writeth, þ̄ it is the time to gelde hiues, when as you see within, þ̄ the B̄es hāg clustring round, & þ̄ the holes of the hony combs be covered ouer, as it were with thin caules, for then be they full of honny. Now the day of gelding the hiues ought to be done timely in the morning, when as the B̄es are astonied throughe the colde aire, and not done in the heate of the day, when they be procured to fly forth of þ̄ hiues, and being then very angry, to sting those persons which come to the hiues. The maner of gelding þ̄ hiues is on this wise, first stop the holes of the hiues, that the B̄es passe not forth, with grasse or some other hearbe, after that putte vnder fine linnen ragges, or strawe, making a little smoake with the same, whiche smoake so flying vpp, causeth the B̄es after to breake & leaue their clustring togither.

After these, with two instruments or toles of yron, made for the only purpose, of a foote and a halfe long, or rather somewhat longer made, of whiche the one ought to be a long knife, and broade of either side the edge, with a haste, and hauing a crooked file on the one end. The other at the beginning plaine, and very sharpe, whereby with this the combs may the readier and quicklier be cutte downe, with that other instrument scraped cleane, and whatsoeuer filth falleth off, drawne awaye, and throwne aside. But where the hieue of the hinder parte, or parte behinde, shall haue no voide place emptie, then make a smoake (as Varro commaundeth) with Galbanum and drie Ore dung, which ought to be made in a earthe fuming pan, filled with quicke coles, or a pan of earth with a narrow mouth, and a handle like to it. So that the one part oughte to be sharper or narrower vppwarde, by whiche the smoake may passe by the little holes, and the other parte where the coles are, broader, and with a large mouth of the one side of it, by which the person may blowe the coles: Nowe suche a pot when it is set within the hieue, and the smoake stirred vp to the B̄es, whiche

by and by not quieted with the saour, flie vnto the foreparte of the hieue, & sometimes flie quite oute of the hieue, wherby any may looke into the hieue without harme, in a maner, to the person. If there happen to be two swarmes in one hieue, then are there also two kindees or formes of honny combes. For euery company of Bees in agrément together, doth fashion & frame the ware, as liketh them best. But all the honny combes being hollowe wrought, and a little cleauing to the sides of the hieue, do hang; whereby they may not touch the floure or bourde, for that otherwile it causeth the swarmes to flie quite away. Yet the forme of their ware is such, as the condition of their cottages is. For that some Bees doe make both square and rounde spaces, and some long, so that eche frameth, as it were certain formes in the combes, according to his kinde. So that the honny combs, are not founde alwaies alike in fashion, but these combes of what forme soeuer they be, are not to be taken all out of the hieues. For in the beginning of Haruest, whiles the fieldes yet flourish, take a fift parte of the combes, but after, when Winter is at hande, then leaue a thirde parte behinde.

Palladius willeth the hieues to be gelded in the moneth of October, and that a third part be left behind. Yet consider, that if there be froze, to take the more: if but a meane, then the halfe part of that leaue for the winter time: if the cottages appeare but halfe full, then take nothing away. But Varro teacheth, that a third part of the combes maye be taken away, & the other parte left for the winter, although the combes be ful of honny. If you fear (saith he) a sharp winter to follow, then take nothing at all: of the same mind is the learned Vergil in this. But the expert practisers of our time in such matters, do affirme, that the honny ought to be taken awaye but once in the yeare, & this in the end of the moneth of August, vnto the middle of Septēber. But the ware being corrupt, then, both before and at any time maye be taken forth of the hieues. Also as touching the honny which the Bees giue, whether you maye take awaye either little or much, must be considered according to the finaltēne or plentifultēne of the honny being in the hieue. And according to the finaltēne

nesse or greatnesse also of the swarm to be nourished, so that aboue the fourth part of the combs may not be taken from any hieue. Yet this order may not be vsed alike in countries, because a man must consider the dealing with the hieues, according to the multitude of floures, & plentifulnesse of fode for the Bees. If y^e warie combs hanging down do run into a length, then with y^e same yron toole which is made like to a knife, being oftentimes dipped in water, that the ware cleaue not to it, nor that the combs remaining may be harmed, & the hieue holde on the one side cut the combs away. After this, put both your armes into the hieue, gathering together, and taking forth the combs. But if the combs hang ouerthwart in the hieue, then must you vse your scraping yron, that the combs of the further side thrust together, may so be cut away. Also the old & corrupt combs are to be take forth, the whole and full of hony to be especially left. And if there be any yong Bees in them, those keepe or preserve to increase the swarm in that hieue. After that, carry al the store of the hony combs into one place, whereas you mind to make the hony, & keep diligently the sides and edges of the hieues round about, that none of the Bees may enter in, which for the hony and ware taken away, do eagerly seeke after, and finding the same, do utterly consume the same if they may.

Therefore, of the former matters must a smoake be made, & that (at the entry) or mouth of the hieues, that the Bees assaying to fly in, may through the smoke be driuen to flye backe again. Now after the hieues be gelded, and that anye shall haue ouerthwart or crosed combs at the entrance of the hieue, those then shall be so conuerted, that the parts behind maye be emptied & left void for another time. So that when they shal be next gelded the old combs rather than the new, are to be taken forth, & the ware renewed, for that the older the warie combs are, so muche the worser they be.

If it happeneth, that the hieue be so made, that the same may not be remoued out of y^e place then ought you to geld first the hinder parte, and after the foreparte: and this especiallye ought to be done afore five a clocke in the morning, and after

nine of the clocke at night, or in the nexte morrowe. Nowe the Bees when they knowe this, all come to fill the emptie place, so that after they haue repaired and filled the same, and fulfilled all the reste aboute it, then flye they to the forepart, and do worke in like order. By whiche we may evidently learne, that they haue filled the same empty place also, by their abiding still there. Besides these, as the great plentie of honny, doeth cause sluggishnesse in the Bees, euen so doeth the much abatement, and exceeding taking awaye of their honny, bothe dull the quickenesse and diligence of them, and cause them also to bee sluggish.

¶ What the honny is, and howe from the hives
the same maye be prepared to vse.

Cap. xxiiij.

Now we firste gather the honny from the combes, so do we the ware for the comfote of the light, and other commoditie besides. Nowe what the honny is, and howe the same taken from hives, maye be prepared to vse, shall hereafter bee taughte.

Firste the learned Isidore writeth, the honny to be of the deaue of some lyquide matter, and assyrmeth also the same to be founde sometimes in the leaues of the greate Canes. To whiche in a manner doth Publius Maro agree in this verse, writing, that hitherto the heauenlye giftes are of the Aereall honny. Others teach the honny in India and Arabia, to be like to salte gathered there on the leaues of trees. Others do doubt whether the honny be a sweat from heauen, or a certayne spittle of the starres, or a iuyce of the aire purging it selfe. But whatsoeuer substance the same is, yet is it a mosse swete, subtil, and healthfull iuyce, as Plinie witnesseth, which at the first gathering of it, is as a cleare water, but after the boyling a while, and purging of it selfe, as the newe wine (after the pressing forth) is wonte to do, doth by the twenty day after come to a perfect thickenesse of honny, throughe the often repeating

and

and working of it in the hote dayes, fro the beginning of May and vnto the middle of Iune.

Nowe the honny is gathered in this maner: first, befoze the honny be pressed out of the combes, must those corrupt combes hauing red filth, and hauing yong in them (if any such be there) be pressed oute, bicause they bothe procure an euill taste, and with that iuyce corrupt the hony. The combs bzused together, ought to be put into a cleane presse, being yet warme, and new gathered out of the Hyues the same day, whiche lette lye there, vntil the hony by little and little be run forth, or rather for the more expedition, pressed forth with a heauy waighte, and the same which is then come forth, is very faire rawe hony. After that the honny with the ware muste be boyled together, as hereafter shall be taught.

Nowe when the combes be thus bzused together, and the yong Bees killed and cast forth, then must you make your hony in this maner. As first in the Moneth of Septēber or October, take y^e heauier and older hives, which are of two or thre yeares olde, and not hauing bzed swarmes in the Sommer befoze: and that ouer smoke and flame of strawe, drie flaxe, or yelowe Brimstone, the hive a little whiles be holden, that the Bees may so flie vppe to the toppe of the hive, or else suche remaining below burne their wings.

After that, turne downe the head of the hive on the ground, and with a sharpe knife cutte the crossed sticke asunder in the Hive, or plucke the forth with your hand. For by that meanes are the combes wel bzused together, and the Bees either killed with the fall of them, or else flye away. After this putte all the combes on a heape, being gathered oute of the hives here and there into a presse, leaning somewhat on the one side, but some put y^e combs into a wine basket made of smal willow or Osier stiches finely knitte and wroughte together, that hanged vppe in a darke place, the Honny maye runne thoroughe by little and little from it. After that the honny hath thus runne forth into a cleane earthen panne or boll standing vnder it, then the same after poure into an earthen pottle, or pottes, be-

ing as yet rawe honny, but clearer and better than the other liquor of the honny. Which for certaine daies let stand open, that the swete licoz may thoroughly cole, and the same in the mean whiles often skimme or purge with a spone. Nowe after this, the fine peeces or crummes of the combes, which yet remaine in the bagge of wicker, or wine basket, or presse, putte into an earthen pottle, panne, or kettle, ouer a verie softe fire, that the same may heate without boyling, and alwayes keepe poure hande in the vessell, to stirre still aboute hither and thither the honny and ware, and to open also the ware by pece meale vntill the honny and not the ware, shall be throughe molten. When the honny throughe the heate, beginneth a little to pricke the hande, then poure all the whole Masse or substance into a strainer, and putting the same in a presse made for the onely purpose, wryng it harde about, yet it maketh no great matter, if that same be not so earnestly wrynged or pressed out, that none of the Honny remaine yet with the Ware, seeing that the Honny and Ware haue effects in some causes alike. Now this Honny whiche is thus runne forth, is named the Soddon Honny, whyche oughte in like manner to be poured into earthen pots, and to stande open for certaine dayes, skimming it dayly with a spone, vntill it be throughe colde. The nobler or worthier Honny is that which runneth oute in a manner of the owne accorde, before the second pressing out of the combs. And mixe not of this seconde Honny with the firste, but keepe them diligentely aparte, leaste by mixing the firste to the seconde, you make the beste (being the firste) the wooser. After all this thus handled, the same whiche yet remaineth in the strainer, wash diligentely with Conduitt or faire Spring water, that you may so haue the Mulse or honny water, of which being soddon and diligentely skimmed (as of this hereafter shall be further taught) is the Mulse made, that serueth to manye good uses.

Which

¶ Which Honny is accompted best. Cap.xxv.

Certaine Countries doe excell in the perfecte goodnesse of Honny, like as the famous Attica of Græce, which for the excellencie of the Honny is hadde in great reputation thoroughout the world. Hybla also & Hymetus being hills of the same Countrie, which the deceiuers applie to Honny, that the same maye both be named Hymetus and Hybleus Honny. Creta, Cyprus and Affrica, as in goodnesse they are notable or worthy, so the abundant or maruellous plentie of the Honny is there commended. Also the newnesse of Honny is likewise commended, as the auntientnesse of wines, but the Spring and Summer Honny, especially if the vessell or hieue stande in a valley or bottomie, and doeth excell in the waight of hande. But the honny gathered of bitter hearbes is counted vnprofitable, as the same Honny which the Bees gather in the country of Pontus, where the Bees onely gather their honny of the Wormewood. The white in all Countries is better esteemed than the blacke, but the beste honny is that whiche is very cleare, of a golden colour, of a moste pleasaunt and swete taste, cleauyng somewhat to the fingers in the handlyng, and but little stiffening or waxing hard together. And that the honny in the pouring forth, doth straightway breake here and there, and squirteth or sprinckleth (sodainely as it were) sundrie droppes abroad, which being on thys wise, Plinie teacheth to be the triall and sure note of a good and profitable honny.

¶ Of the venomous Honie, and of the wonderfull Honnye of Creta. Cap.xxvj.

If so much forceth to vnderstande and know, what maner of foode y same is, with the which y Bees do liue, as y poisoned honny also, that may be gathered by them, whether it be euill or venomous. For the Honny of Heraclea in the Countrey

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trex of Pontus, hath bin for certaine yeares, very dangerous, especially throughe a certaine hearbe growing white, whiche also bereth their cattell by eating therof, named of the dwellers there, Aegellothron. But by these notes is that Honnye founde out and tried to be venomous, as firſte, that the same is not thicke at all, the colour brighte or more glistering, and hath a strong sauour, mouing forthwith often sneeſing, and is also waightier. Also such persons, as taste somewhat thereof, doe couet to lie or fall hastily on the earth, seeking for colde-nesse, and be all on a sweate, so that in sodaine daungers, muste some speedy helpe or remedies be ministred, like as the olde Gulse of the best honny, and herb Grace, or other like confections, be often ministred to suche persons. There is also another kind of venomous honny, in the border of the country of Pötus, that for y madnesse which it engendereth, is named of the people Neonomēn: the same honny is supposed to be gathered of the floure Rhododendros, whiche groweth plentie there in the wooddes. Plinie writeth of a maruellous honny to be in Creta; for that in Carina being a hill of that Countrey, he affirmeth a honny to be gathered, whiche the flies wil not touch, and supposed also to be a singular Honny, for the composition of euery medicine.

¶ Of the miraculous worthinesse of Honny.
Cap. xxvij.

Most men in Italy prepare and make their medicines whiche they purpose to keepe long, with honny, so that honny preserveth euery thing from putrifying, which you would haue in safety, and to continue for a seasō, through his clamminesse. And of this, auntient men did enbalme bodyes of the deade, which they would haue preserved, and to continue sound without corrupting many yeres, with honny only, and the same they also smeared within the tombes or sepulchres of the deade, for the longer keeping of bodyes. The selfe same writeth the learned Papinius of y body of Alexander, which was likewise

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embaulmed with Honny. And not vnlike to this writeth Plinie, in the xxiij. booke, and xxiiij. Chapter of his Histories, of sundrye dead bodyes also embaulmed wth honny. Which in another place also of his Histories writeth by Claudius Cæsar, that brought a monster out of Egypt into his countrey, whiche was also embaulmed with Honny. Ahanæus also writeth, that bodyes subiect to sickenneses, maye both be kept free from sickenneses, and from corrupting a long time, thzough the often smearing and annoynting of Honny ouer all the bodie. As the like wyrters report, that the Isle of Corsica, or Corse do, whiche liue a long time.

The Macrobian being a people in Affricke, named also Moercin, doe liue a long time, as certaine authours write, by cause with the meate of Honny, whiche is plentie with them, they dayly be fed, and vse continually. Some affirme that Democritus which recreated by Honny, with the only breath and sauour of the Honnye made hote, liued (as they write) vnto a hundred nine yeares. Aristoxenus writeth, that the table of Pythagoras was dayly furnished with only breade and honny, and yet liued vnto f^{ty} fourescore and ten yeres of the Philosopher Heraclides. The Honnye also is founde to auayle against surfettes, and of this accompted amongst the medicines putting awaye drunkenesse. And of this it is no maruel, that suche thzoughlye skillfull in Physicke, when anye be ouercloyed or filled with Wine, do counsell firste to emptie their stomackes by vomityng, and after against the force of the fume euaporating of the remnaunt of the Wine yet remayning, they giue to them Honny spreade on breade, as it were by putting backe the euill, that it maye so remedie and putte awaye the grosse fume.

¶ How profitable the vse of Honny is in medicines. Cap.xxviij.

Like the white Honye is to be vsed in cooling Medicines, but the ycalowe in heating medicines: also the nature and
ff. iij.
propertie

propertie of honny, is to cleanse and open, and to expel humors. Therefore it is profitably applyed in filthy vlcers, being boyled and annoynted vpon. It closeth also loose and gaping fleshe, through his wholenesse. Also with Liquid Alumē & honny sodden together, are Ringwormes, and cornes or swelling of the feete healed, by annoynting therewith. Against the vncertaine soundings and noyse of the eares, and grievous pains of them, the hony grounded with that salte digged out of the earth, and dropped warme into the eares: the selfe same killeth both nits and lyce, by only annoynting the heade therewith. Also the hony purgeth the eyes dimme of sight, healeth the swellings, and other defaultes and griefes of the iawes, the swellings and kernels vnder the iawes, neare to the throte, after the preparing to vse, the same be gargelled in the throate, and the mouth washed therewith. The honie eaten causeth vyne, helpeth y cough (being cleane skimmed before) and the bite of a Snake or Adder. The hony also helpeth those which haue drunke vnwares the iuyce of blacke Poppie, so that againste the same enill and daunger they drinke rosed honny warme. Also the same drunke helpeth the malice and daunger of Pushtumes eaten, and the bite of a madde dogge, or otherwise melting in the mouth, after the forme of an Eclegma. Yet all the sortes of rawe Honny be windie and swell the bodie, mouing a rumbling or noyse in the belly, procuring y cough, easily couerted into euil humors, stopping the liuer and the milt through the clamminesse, and hurtfull to chollericke bodies, if so be the honny before (as Dioscorides writeth) be not thoroughly skimmed and cleansed as the same ought to be. The honny also boyled doth better nourishe than the rawe, yet lesse mouing the belly to solublenesse, and to the stoule. And the honny of it selfe, or mixed with others, helpeth the soze in the lungs, and all other diseases of the lungs. The honny is rightly ministred to such as haue the impostume in the lungs and the pluresie. And the hony in which dead Bees are, is applyed to the venemous honny. The hony drunke with wine helpeth the corruptiōs which are engendred of the meate fishes. But to colde and moyste bodies the honny is more profitable

fitable, therefore berrie fitte for olde persons, as Galen affirmeth. And to persons being twentie yeares of age, and of an vntemperate hotenelle, or others hote of qualitie, the honny to them is hurtfull, bycause it is some conuerted into choller in them. Democritus was on a time asked, by what meanes men might both continue in perfite health, and liue vnto very old yeares, to which he thus answered: if so be men annoint their bodies outward with Oyle, and apply their bodies inward with honny. Further honny pzofiteth weake persons, being applyed as the Pulse water, of which shal after be taught in the next chapter. To persons cold of nature, the honie may aptly be ministred in hote broth, but to hote persons ministred in warme brothe, the honie is not rightly given. The honny mixed with Camphora, & lying to settle threë dayes befoze, with the which annointing the face, doth speedily clense the spots in the face: the self same doth the honie, mixed with the gall of an Dre. The pure white honie clenseth the breast, softneth Impostumes, being as well without, as within the bodie. The honny also mundisyeth, openeth the stoppings of the Liuer and Spleete, helpeth dropsie bodies, and strengthneth weake members. The Aromaticke honny much auayleth in sundrie diseases, being thus prepared, as the pure redde Rose leaues finely clipped, and after boyled in pure white honnie, being often and diligentlve skymmed. For such a Honnye doeth comfozte and mundisye, dissolueth in the clenking the clammy swellings, digesteth the fleumaticke and grosse humoys, and drunke also with colde water, it bindeth the bellie, but ministred with warm water it loseth the bellie.

Of

¶ Of the drinke of Honny which they cal the Mulse water, or sweete water of the Romaines.

Cap. xxix.

By the aunswere of Pollio the Romaine vnto Augustus Emperour, we may evidently learn, that the Mulse made of hony, is healthfull drinke in strengthening the bodie. For Augustus on a time demaunded of him by what meanes a man might liue to great yeares, and all that season frée from sicknesses, to whome he thus aunswered, that applying the Mulse water within, and annoynting Dyle without the bodye, doeth worke the like. The Mulse truly is a drinke made of water and hony mixed togither, which the Greeks properly name Melicrate, & some Hydromel, as the drinke made with wine vnlayde, or without water, and hony, they aptly name Oenomel. Now the Mulse water drunke, doeth ease the passage of winde or breath, softneth the belly, and the long time of oldenesse changeth it into the kinde of Wine, moste agréable and prosyting the Stomacke: but the same contrary to the Synowes, yet it recovereth the appetite lost, and is a defence against the dangerous drinke of Henbane, if it be ministred with Asles milke. This drinke truly (Aegineta wytyng therof) is thus made: let eight times so muche water be mixed vnto your Honnye prepared, wherby the boyle shal seeth so long, vntill no more some aryseth to be skymmed off, then taking it from the fyre, preserve it to your vse. But the same Paule Aegineta affyrmeth, that the Mulse prosyfteth nothing in manner the collicricke, because the same in them is lightly conuerted into choller.

¶ Of the drinke Oenomel, which is made of pure wyne and Hony. Cap. xxx.

The Oenomel, which is a sweete wine made with Honny, Aegineta teacheth the same, not only for the preservation of helth, but also to expel the tozmet of sicknesses, through this
most

most wholesome drinke, as h which giueth, not onely strength of body and courage, but the long race of yeares. Also it expelleth an olde grieue of the Reines, being often drunke with Parcely seedes. But the beste Oenomell is that which is made of olde and tarte wine, and the beste purified hony, for the same doth lesse swell. The same also harmeth drunke after meales, but before taken, doeth procure an appetite. Dioscorides teacheth that maner of making the Oenomell in this order: first he willethe to take one gallon and a quarte of Wine, and mixing it with halfe a gallon, and a pinte of the beste hony, to prepare the same orderly. But some prepare or make the drinke speedilier to vse after this manner, as the hony they boyle with Wine; and after poure forth the same into other vessels.

¶ Of the singular water of Hony gotten by order of distillation. Cap xxxj.

The Hony of Bees mete to distillation, ought especially to be white of coloure, which before the distilling muste be mixed with pure and white and well washed sande, but not drie in any case, after that, putte the same either into a common Rose Limbecke of Tinne, setting a hearie siue close vpon it, that it may touch the Hony in the distilling, or else into a body of Glasse, sette into a potte of fine sifted ashes or sande, making at the firste a softe fire vnder it, vntill the first water be come, which is white, and after the yelow water appeareth, then put vnder another receiuer, setting aside the white, and so long distill vntill the redde beginneth to shewe: at the appearance of which, put vnder another receiuer, letting that remaine vntill no more will come. Which red water being the last, serueth for sundrie vses, as to die womens haire yelow, by ofte wetting the haire with a Sponge, and drying the same in the hote Sunne. Also it causeth fayre and long haire, and stayeth the sheading of haire: besides (this thirde water) doeth cleanse the soule corruption and matter being in filthye woundes, and olde blcers, if they be washed twice a daye

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with the same, causing also newe flesh to grow in those places, if you dayly washe them with the sayd water, or otherwise tip linnen clouts in it, laying them aptly on the sores. The selfe same healeth places grievously burned, without appareance of anye scarre afterwarde, by often applying linnen cloutes dropped in it. And the seconde water being of a golden colour dipped into the eyes, doeth not onely helpe swollen and bleared eyes, but the pinne and webbe in them, by the dayly and often dropping of the same into the eyes. But as touching the white and firrke water, there is no worthy matter mentioned in this place by any of the old Physicians.

¶ Another manner of distilling the Honie, more at large taught. Cap. xxxij.

Take a pinte, or as much as you wil, of y pure rosed hony, which put it into a bodie of glasse close covered & luted about, setting the same after into hote horse dung with a square stone on the head, & couering it over with y horse dung for 14. dayes, after which time, take the body forth, setting it into a fornace of fine sifted ashes, well a finger bredth or more above y hony, presupposing on your part, y little peeces of flint stones be put into y hony, & then distilled with a soft fire into a receiuer well luted at the mouth, for doubt of the ayre breathing forth. Whē y same beginneth to distil, then draw forth part of the fire (vnlesse you can otherwise gouerne your fire by the help of the fornace) whiche comming forth the white, let so long distill, vntill there appeare yealow droppes like to gold. Upon the sight of this, set vnder another recepuer, keeping diligently this firrke water by it selfe, and increasing the fire, let that long distil, vntill certaint white smoke appeare, running into the receiuer: that speedily take away, putting to another receiuer, which let so long distill, vntil no more will droppe forth, and this laste, is of a rubie colour in rednesse, so that if a woman often wettesth the heares of hyr head with this thirde water, setting then in y hote Sunne, both to drie and wette them againe, wearing in y meane whiles a large strawne hatte with an open crowne, to spreade

spredde the heares vpon, for the speedier drying of them, whiche so ordering, doeth not onely cause the heares to grow long and very sayze, but dyeth them in time so yealow as gold. Also to diuerse other vses, both this red water serue, as afore is taught in the other Chapter. The white water (whiche commeth firste) by waishing the face orderlye with it, doeth cause it to become cleare and sayze, and keepeth the skinne from looking olde, for a long time, as the same hath ben experienced often by the worthy dames of Rome, Naples, and Venice. And the yealow lyke golde being the second water, doth especially serue to this vse, that if any person happeneth to be infected with the plague or Pestilence, then to take two ounces of this yealow water of Aloes Epaticke, of redde Pyre, and of the east saffron, of each ten graines, and a leafe of the best golde, all which grinde into fine powder, mixing the same with this water: after that giue it vnto the sicke to drinke, whiche no doubt wil both helpe this & many other diseases.

¶ The manner of distilling a water of Hony named the Quintessence. Cap xxxij.

TO make this singular and precious water, you must take two poundes of the purest white honie, being both cleare and pleasaunt in taste, whiche put into a body of glasse, being so bigge, that foure of the fine partes of it maye remayne emptie, the same lufe stronglye aboute, setting the heade after on it, and a receyuer aptelye to the nose of the Still.

When you haue thus done, then make a gentle fyre at the firste vnder it, but after increase the fire or heate more and more, vntill certaine white smoakes appears in the head of the glasse bodye, whiche do you workemanlye coole and turne into water, by the wettyng of linnen clothes in colde water, and layed on the heade and nose, towards the receiuer, for that turneth into a water so red as bloud: and

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being

being all come, putte it into another glasse, stopping the mouth close, whiche let stande so long, vntill the water become verpe cleare, and in colour to the Rubie.

Now being on this wise, distill the same againe in Balneo Mariae, and so often repeate this, vntill you haue distilled it fire or seauen times ouer, that the colour be chaunged, and in the ende, to the colour of golde. Whiche then is mosse pleasant of sauoure, and so swæte, that nothing maye be compared like to it, in flagrantnesse of smell. The Quintessence doeth dissolve golde, prepareth it apte to be drunke, and any Jewell put into the water, it doth also dissolve the same. Also this is named the Blessed Water, in that giuing to any two or three drams to drinke, being at the point of death, doth so sodainely recouer the person againe, as doeth the Quintessence of wine. And washing any grievous wounde or stripe with the water, doeth in shorte time heale the same. Also this pretious water doth maruellously help the cough, the Rheume, the disease of the Spleen, and many other diseases, whiche woulde scarcely be beleued. The water also ministred daily vnto a person sicke of the Palsey, for the space of. xlviij. daies, he was by the mightie helpe of God, & this miraculous water, thzoughly healed of the disease. Also this Quintessence doth helpe the falling sicknesse, and preserue the bodye from putrifying, so that by al those we maye learne, that thys is rather a diuine water from Heauen (and sente from God) to serue vnto all ages.

¶ The manner of drawing and making Waxe of the Honny combes. Cap. xxxiiiij.

The Honny being drawen from the combes, although some Bees hang on them deade, yet putte all together into a fayze panne or cauldron, into whiche poure so muche water or more, as the quantitie of the combes be. This set ouer a softe fire, vntill the same what it be, is thzoughly heated and molten in the panne, and in the melting continually sturre the same aboute, with a bigge splatter or some staffe, leaste the Ware cleaue

cleaue to the panne sides, throughe the flame or heate of fire, and appeare burned: after poure the whole substance into a course hairen bagge, pressing it forth into a troughe or other like vessell, made for the only purpose, on which poure two or three kettles full of hote water, that no dregs hang after on the Ware, and by that means shall you haue the Ware both pure and cleane. But if you will haue it caste into faire round cakes, and to be cleaner and purer, then melte the Ware againe, and being molten, poure it into a cleane vessell, which washed likewise with warme water (as aboue was taught) set after in the Sunne, by which meanes, the cake will continue verpe long faire of coloure.

¶ What Waxe is beste allowed and commended.

Cap. xxxv.

WAre being the soode of lighte, and seruing vnto innumerable vles of men, of all the kindes, the same is beste allowed and commended, whiche is bothe newe made, meanelye redde of coloure, somewhat fattie, smelling swete, hauyng some sauoure in it of the Honny, and cleare. Of the Ware also in sundrie Countries, that in the countrie of Pontus is well commended, and the same in the Ile of Creta: nexte to these is the Ware in the Ile of Corfica, which is made of the Bore tree, and supposed to haue some good effectes in it for Medicine.

¶ Of the great commoditie and benefite of Waxe in Medicines. Cap. xxxvj.

WAre hath a meane among heating things, both in the cooling, drying, and moistning, as writeth Galen in the sequenth booke of Simples, and 22. Chapiter, whiche properly helpeth the roughnesse of the breaſte, when it is toynd or mired with the oyle of Violets, for that bothe mollifyeth or softneth the sinewes, ripeneth and resolueth vlcers. The quantitie of a

Eg. iij.

pease

Pease in ware swallowed downe of Purples, or such women as giue sucke, doth dissolue the milke courded in the pappes. And tenne little peeces of pure newe ware, vnto the biggenesse of a hempsede, drunke downe at one time, doeth cause the milke not to courde in the womans stomacke and breastes. If the priuie place or thereabout, of either man or woman, happeneth to swell, then by applying an ointment made of white ware, it shortly assuageth and healeth the same. If anye also happeneth to be diseased with the bloudy fire, by stuffing a yong Pigeon with newe ware, after roasting the same, and eating the fleshe thereof, doeth in shorte time after stape the same. Also, if a Quince made hollowe and filled with pure newe ware, be after roasted vnder hote embers, vntill the same be tender, and eaten fasting without drinking after it, doth in like sorte stape and helpe the perillous fire, and scouring of bloude. The ware besides serueth to all maner of plaisters, ointments, supposito-ries, and such like.

¶ Of that whych is a stay of the combes, and made for a defence of Bees from colde. Cap. xxxvij.

The same made of Bees at the entrie of the mouth of hives, thought to be yelow of coloure, and sweete smelling, like to Storax, and drawne into a length, like to Mastike. Yet that is rather chosen, bycause in heating and drawing it is principal-est. For of itselfe, this draweth forth thornes or splents of wood rundepe into the flesh by applying it plaisterwise on the grief, it helpeth an olde coughe by making a smoake thereof, and holding the mouth ouer it, and applyed in the forme of an ointment on ringwormes, doeth speedily heale them. Poise this matter (as aboue was taught) is the stay of the hony combes, by whiche Bees stoppe and keepe forth al manner of colde and other annoyances which might endamage them, the same also being of so strong a sauor, that some vse it in the stee of Galbanum. M. Varro nameth it a refuge of Bees, withoute their cottages, bicause Bees make the same at the entry of the hie.

¶ Howe

¶ Howe to make Waxe white. Cap. xxxviij.

Waxe is made white in this manner, firste that kinde of ware (fit for this purpose) ought to be whiter and purer, and broken into little peeces, putte after into a newe earthen panne, pouring vpon it sufficient salt or sea water, and a lyttle fire vntill it hath seethed altogether. When the same hath boyled twice or thrice vpon, remoue the panne from the fire: the ware being thoroughly colde, take forth of the panne, and scraping off the filth, if any suche hang on, putte againe into newe salte water, seething it againe. And when the ware hath so often boyled (as aboue was taughte) then take off the panne from the fire, and taking the bottome of a newe earthen panne, melt it with colde water, whiche dippe by little and little into the ware, drawing it a little, and that the water be aboue the ware, whereby the ware maye become verie thynne, and be the sooner cooledd selfe. And taking by and by oute the moulde or bottome, drawe firste the rounde cake off, and wetting againe the bottome in colde water, dip it into the ware, and the same so long doe, vntill you haue drawne off all that ware into cakes of like sorte, whiche after stiche throughe with threde, hanging the cakes on a rope one from another, and that in the daye time often wetting them in the sunne, but in the nighte time, in the moone light: and so long doe this, vntill the ware be white. And if anye desireth to haue ware whiter than this, then let him do the like, as abouesaide, but boyle the ware oftner. Some in steede of the salte seawater, take strong Brine water, in whiche they boyle the ware in the same manner twice or thrice, as aboue was taughte. And Paulus Euerdus in his booke of Confections, teacheth the making of ware white two maner of wayes.

¶ Howe you may make redde Waxe. Cap. xxxix.

That you maye colour and make Ware redde, take to one pounde of ware, thre ounces of verve cleare Turpentine, if it be in sommer, but if it be in winter, then take foure ounces. Now these disolue and melt together ouer a soft fire, and taking it from the fire, let it coole a little, after which put in your Vermillian finely ground on a Marble stone, and of swete Salet Oyle, of eache one ounce, mixing these well, stirre al together, diligently. But some in stæde of Vermilion, doe take the reede leade, which is little commended, except there be thre times so muche of the redde leade, as of the Vermilion putte in. And in the like sorte may you make the græne Ware, if instæde of the Vermillian, you take so much of the græne Copozas finely ground, as you did of the Vermilian.

¶ Howe to drawe a profitable Oyle out of Waxe, for fundrie vses.
Cap. xl.

The Oile of Ware, is myraculous and diuine in working, bycause it serueth in a manner vnto all griefes. Reymond Lully greatly commendeth this Oyle, approuing it rather as a celestiaall and diuine remedie, and that this in woundes, doeth worke mooste miraculously, which for his maruellous commo-
ditie, not so well to be allowed of the common Chirurgions, bycause this pretious Oyle healeth a wounde, be the same neuer so wide and bigge, being before wide stitched vyppē, in the space of tenns or twelue dayes at the mooste. But those whiche are small, this Oyle healeth in thre dayes, by annoynting onely on the cuttes or woundes, and laying after linnen cloutes, wette in the saide Oyle, vpon the woundes. For inward diseases the saide Oyle worketh myraculously (if that you minister or gyue a dramme at a time in white Wine to drinke) and stayeth also the sheading of haire, either on the head or beard,
by

by annointing the places with this Oyle . Besides these, it is miraculous in the procuring of bzine, being mightily stopped, and helpeth also stiches and paine in the loynes , by dzinking the like quantitie of the Oyle aboue taughte in white wine.

Now the making and dzawing of this oyle, is on this wise : firste take a body of glasse, named a Retort , which strongly lute aboute with clay and flocks, diligently tempered together with salte water : after the body is thus fenced and thoroughe dzie, putte in a ponde of pure newe ware , so that the saide ware filleth not aboue halfe youre body , and to euery ponde of Ware, poure in foure ounces , of the poudre of redde bzicke, finely bzused, whiche after set into an earthen pottle, filling it rounde aboute with fine sifted ashes or sande. After this, set the pottle with the bodye in it, on a soznace, making a lesse fire at the firste vnder it , and after encreasing a little more your fire, distil them so long, vntill all youre Oyle be come, whiche after a while wyl congeale in the receiuer; but it maketh no greate matter, although the oyle so doe , for it is neuerthelesse in his perfection. Bycause that if you shoulde distill it so often ouer , vntill it will congeale or stiffen no more in the receiuer, then shall you make it ouer hotte, and so quicke in the mouth, that it is not possible by anye meanes to dzinke it downe . But being once distilled , you maye either giue it in Wine to dzinke, or annoint with the Oyle on any place of the bodye where you will, whiche will alwayes doe good , and hurte in no manner.

And in consideration of these aboue taught , you maye evidently learne and perceiue, that this myraculous Oyle oughte to be hadde in greate veneration of the common soyte.

Hh.

Another

¶ Another waye of drawing the Oyle of Waxe moste noble, and doth maruelously help the cold Goute, the Sciaticke, the swelling of the legs, and al other griefes proceeding of a colde cause. Cap.xlj.

TAke of pure newe ware so muche as you please, which put into a panne over the fire to melte, and being molten, haue by you in a readinesse another panne well glased, and cleane within, filled with verie good and perfecte wine, into whiche poure youre molten ware, letting it soake and drinke in well, and washe often in the saide wine. After this take the ware forth, melting it againe over the fire, and molten, washe the same againe in the beste wine, so that euerie time melting the ware, poure it into freshe new wine, washing and soaking it in the same diligently, after wringing it very wel with the hands, And vsed on this wise, both melt and washe againe in the a-bouesaide manner, and this also do for righte times together. When set the same forth, being a cleare season and ayre, all the nighte throughe, after which put the ware into a Retorte with a little of Mumia, and oyle of Ypericon or Saint Johns wort, and a little olde Oyle: and although without these it maye doe good, yet mixed with these it worketh farre better, than vsed alone.

¶ Nowe to retourne to the former matter, this crooked bodye or Retorte set in fine sifted ashes, and a gentle fire made vnder it, vntill all the oyle do runne forth, and in this coming forth of the oyle, shall appeare all the foure Elements, as Ayre, Water, Earth and Frye, whiche will orderly appeare in the receiuer, right maruellous to see. And the Oyle being thus fullie drawne, worketh miraculoussye in all diseases which proceed of a colde cause, like as we haue aboue taught.

¶ The conclusion to the Reader.

THus (gentle Reader) I haue (I trust)efullye satisfied thy desire in as manye things as are needefull to be knowen. And I committe this my little Booke to thy gentle iudgement: if thou mayste recciue any profite or commoditie thereby, I shal be gladd of it, and if not, yet fauourably let it passe from thee to others, whose knowledge and experience is lesse than thine herein, that they may gather suche things as to them are strange, thoughte to thee wel known before. And thus briefely I committe thee to God.
 (::)

Hh.ñ.

An



¶ Certaine Husbandly Coniectures of Dearth and Plentie for euer.

The first Chapter.



And first consider and marke , that howe the weather is a daye befoze the day presente, and the daye after the Sunnes entraunce into the signe Aries, and suche like shall the weather be (foz the moste parte) in these thre moneths, as in September, October, and Nouember.

And looke howe the weather shall be at the Sunnes entrance into the signe of Leo, as at the day of the entrance the daye befoze , and the daye after, and suche commonlye shall be in the moneths of December, Ianuarie, and Februarie, foz if the winde shall then blowe oute of the North, or East, and those daies drie, then shall followe a verie colde season in those thre moneths : but if the winde blowe out of the South or West, and that it raineth in those thre dayes, then yse to followe in those thre moneths. And if the weather in these thre daies shall be neither wholly drie, nor wholly moiste, then shall folowe an vnstedfaste Winter.

And like as the weather shall be at the Sunnes entraunce into the signe Libra, as at the daye of the entraunce, the daye befoze, and the daye after, suche foz the moze parte shall be the Spring, as in the moneth of Marche, Aprill, and May.

And looke howe the weather shall be at the Sunnes entrance into the signe Aquarius, at the daye of the entraunce, the daye befoze, and the daye after, (suche foz the moze parte) shall the weather be in the moneths of Iune, Iuly, and August.

And manye auintient men aspyrme, that like as the weather shall be whiles the Sunne is running by the signe Libra, and vnto the .20. degre of Scorpio, which time is fro the daye named (the Exaltation of the crosse) vnto the day of al Saints, such foz the moze parte shall the yeare following be , as in doing that foresaide time into twelue moneths, and that foure dayes

daies doe aunswere to eche moneth, of the whiche foure dayes, that eache one of the foure, doeth declare the condition of the quarter following, and beginning also to reckon p^rouember as the first moneth of the yeare.

And the generall signes of dearth and plentie after y^e minds of the auncient husband men be these, as the ouermuch colde- nesse d^ryng, the ouermuch moy^st^re softning, the ouermuche heate greatly burning, and the ouermuch d^riness^e putrifying and working into dust.

For when any of these qualities shall excede in the proper time, but especially in that time, which to the corne and fruites do not agree, then shall dearth and scarcitie both of frutes and corne ensue.

As for example, when the moneth of March shalbe ouer moy^st and wet, which rather ought to be d^rie, and that the moneth of April shal be d^rie, which then ought to be moy^st, doth after pronounce the penurie of the fruites of the earth.

And if that part also of sommer shalbe weat, in which the corne doth then fall vnto ripenesse, that rather ought to be d^rie, doth after signifie the scarcitie both of corne and other fruites of the earth.

And the like may be saide of the other constitutions, which when the Elementall qualities shal be in such a condition as do best agree, then doe they promise both fruitfulnessse and plentifulnesse.

And if in the Spring be signes of colde and drought, and that in the ende of the spring neare the full moone be frostes, then shall follow very small yeelde of the fruites of the earth, and little wine that yere following.

And if the spring be d^rie, then fewe shall the fruites of the trees be, yet god, and the scarcitie of corne shal be that yeare.

And if the Spring shall be colde, the fruites of the Earthe shall be late ripe.

And if the Spring and Sommer shall be ouer wette, or mistie, or colde, with cloudie weather for manye daies together, whilles all the trees haue bozne their blossoms, and the fieldes

their floures, and beginne to shed be their floure, then shall follow the scarcitie of fruites of the earth in that yeare, or else a verie greate rot of them, and many sicknesses in that yeare.

And if the Sommer be drier than customably, then shall follow the scarcitie of corne, yet the Sommer fruites shall that yeare be sound, the fishes then die, and most sharpe sicknesses shall raine that yeare.

And if the Sommer shall be hotter than customably, then shall followe many sicknesses or diseases, yet great plentie of the Sommer fruites that yeare.

And if the Sommer shall be colder than customably, then shall follow a healthfull yere, but the fruites of the earth shall late ripe that yeare.

And here further note of the spring, that if in the same season of the spring, there shall be a more plentie of all floures and fruites toward than customably, doth after signifie a scarcitie of corne that yere, unlesse the heate of sommer doth otherwise reforme the same.

And the wise and auncient husbandmen haue obserued, that when the winter shall send downe store of raine on the earth, so that the same excede not or bee too much, and that the March following be drie, and the Aprill wette by often shoures, and that the same part also of Sommer bee drie in which the corne falleth to ripenesse, then doth the same promise a plentifull yeare.

And when that part of the Haruest shall be faire and drie, in which the wheat is sownen, and the parte of sommer in which corne falleth to ripenesse shall be faire and drie, the spring also meaneely warme, doth then not only promise fruitfulnessse, but a plentifull yeare of corne.

And now the Haruest moyster than customably doth putrifie the Graves, and causeth a small yelde of wines that yeare, with the scarcitie of other fruites.

And if in the latter part of Haruest it be moyster, than in the yere following shall ensue the scarcitie of corne.

And if the Haruest bee drier in the first part, then in the yeare

yeare following shal die, and that smal graine named Mill, and such yke, be deare.

And if the harvest be hotter than customably, then shall followe a diseased yeare and that dangerous.

And if the Harvest be colder than customably, then shall followe the losse of the Harvest fruites both in the store and fall of them.

And the Winter colde and drie, is of all husbandmen commended, but extreme colde, doeth then slea the trees, especially those which toy in a warme aire, as the Pomegranade tree, the Olive tree, the Lemmon tree, the Figge tree, the Peach tree, and such like.

And if the Winter excēde in the extremitie of coldnesse, the doth it signifie harme both unto the Vine and Olive tree, the Cherie tree, and the yellow Quince tree.

And if the Winter be hote and moyst, then the same doth pronounce an vnhealthfull yeare, and daunger to seedes and fruites of the earth.

And the excesse qualitie, and distemperature of any of the foure quarters, is euill and dangerous to the fruites of the earth.

And the plentie of snowe falling in the due season of the yeare, both batten the earth, (and if the others do helpe) then doth it signifie the plentie of cozne and other fruites of the earth.

And if any washeth the handes with snowe, it doth then make them stedic, in that the snowe is ingendered of a vapour somewhat drie and earthly.

And the snowe nourisheth shæpe & other beasts in that the snowe is ingendered of the moyst aire, in which life consisteth.

And the snowe increaseth the cozne and other growing things on earth, in that by his coldnesse it so doth shut y poures of the earth, that the heate with the whiche the seedes of the earth be cherished, cannot then breathe forth.

And the snowe heateth and cherisheth the earth, by the thicke couering of it, and defendeth the græne wheat and other

other seedes sown, from the sharpe and vehement colde then of the ayre.

And the snowe may be kept all the yeare vnder the earth, covered with strawe, and profitable it is to mire with the wine in hote sommer, and necessarie also to cole the ayre about sick persons.

And the vnprofitable falling of the deawe, mistes, or fogges (especially when all crescent thinges doe bud forth, and shewe theyr floure) as in the Moneth of Aprill and May, as well on the trees, corne and grasse, which beastes then feeding on be greatly harmed, through the deaw fallen, and all other thinges also much harmed by the same, as hath bene often obserued by the ancient and wise husbandmen.

And the ouermuch falling of raine, frostes or haile, especially in the spring time, and in the winter time, whilst the corne is yet as grasse, the excesse of raine also doth then threaten the scarcitie of vittailles to ensue that yeare.

And the great plentie of beanes, after the opinion of the common husbandmen, through the much raine fallen, doth fore shewe the scarcitie of corne, and especially of wheate that yeare.

And a like iudgement may be giuen of the Oke and Holly tree, which if they beare plentifully, then a fruitfull yeare followeth, and contrariwise bearing but few, then a deare yeare of corne to ensue.

And the great plentie of Grasshoppers, wormes and Caterpillers appearing in their proper time more than customably, doe not only declare harme to vines and seedes sown, but to all fruites that yeare.

And the great store of windes, not only cause little frustes, but scarcitie of corne to ensue that yeare.

And a stilnesse in a manner throughout the yeare, both declare a likelihode of the plague to ensue shortly after.

And the auncient Hipocrates writeth, that when in the Sommer the North winde long continueth, and in the Haruest, the South winde with store then of raine, it doeth after threaten

in the Winter the headache, hoarsenesse of voice, the cough, consumptions or impostumes to ensue.

And if after a drie Sommer (as write the auncient Physicians) the North winde doeth long continue in the Haruest, then the bodie of women, and suche diseased with a moiste sicknesse, doe then in that season the rather recover health, in that the driesse of the seasons and windes is contrarie to the excesse, and to the rottennesse of the humors, by whiche the sicknesses were caused.

And if the Winter shall be hote and moiste, and the Spring colde and drie, then doth the same threaten sicknesse to men in the Sommer, and that women with childe shall haue vntimely birthes of a light occasion.

And Hypocrates writeth, that when in the Winter be longer Northerly windes, and in the Spring longer Southerlye windes, and that raynie and wette in the Sommer following, then doeth followe Agues, and the diseases of the eies.

And when after a colde Winter, and that South winds and raynie in the Spring, and that the Sommer be drie. then in the Haruest following doe agues ensue, paines also of the bowels thozoughe the greates scouring of the bodie, and sicknesses, with the whiche olde men, diseased persons, and childre be then moze pained.

And when the Southwest winde doth long blowe aboute the end of Haruest, the those persons diseased with a long sickness, do shortly after die.

And a further knowlege of dearth and plentie of victualles, and of sicknesse may be had on this wise.

Firste in the end of Haruest, cutte open two or thre Oke apples, looking whether there be in the either flies, Wormes, or Spiders.

For if in the Oke apple be founde Wormes, or Magots, then they signifie (after the opinion of auncient husbandmen) bothe dearth and scarcitie in that yeare.

And if the Oke apple cut open be founde like to flies, it doth after threaten battel to ensue in that yeare.

And if in the Oke apple be founde like to Spiders, then doe they foretelle the plague or pestilence to ensue in that yeare.

And to conclude, the onely pꝛoofe of the former taught, shal moue the Reader better to credite these.

*An euerlasting Prognostication of the
state and condition of euerye yeare, by the
only Kalends of Ianuarie: written by that antient
learned Leopoldus Austriacus, and others,
foꝛ the commoditie of the wise Hus-
bandmen. Cap. ij.*



ANOWE, when the first day of Ianuary shal happen on the Sunday, then the Winter shal be temperate and good, yet windie, the Spring wet, the Sommer drie, and the Harvest hurtfull throughe windes. So that victualles shal be reasonable good cheape, plentie of Wines, the good health & encrease of sheepe and other cattell, and the indifferent plentie of hony, and the like plentie also of Peason, Beanes, Metches, and the herbes and fruites of the Gardens. Also yong men shal die that yeare, and a discorde to be feared betweene Kings, or else some manifest perils to happen to Kings and greate Prelates in auctoritie, and that diuers robberies shal be attempted that yeare. And if controuersies happen betwixt Princes, then a conclusion of peace to be looked foꝛ in that yeare.

And if the firste day of Ianuarie shal happen on the Monday, then shal the Winter be warme, the Spring very colde, with Snow and frosstes that season, the Sommer boisterous throughe winds, and haile oftentimes, and lande floudes shal be somewhere, and the Harvest very drie. So that sicknesses shal ensue, throughe which many of the simple soꝛte shal then die, and diuers also shal die, throughe the sodaine plague then hapning.

happening. Also the likelihode of greate alteration to ensue, & that auntient women to mourne, Kings to die, and a greate slaughter to be feared by the sword. Also small store of wines, the death of Bees, and little hony that yeare.

And if the firste beginning of the moneth of Januarie shall be on Tuisday, then that Winter shall be long, and much snow in that season, and the likelihode of land floudes, throughte the muche raine then falling, the Spring windie, the Sommer verpe wette, and the Haruest abounding in grosse and rotten humors (so that a moste greenous plague is to be feared, and especially of women, and the likelihode of many shipwackes, and very greate cares and troubles to happen vnto Princes, with the scarcitie of fruites of the trees: and cozne shall be deare, with the sodaine death of cattel to be feared that yeare. Also wood shall that yeare be deare, and the likelihode of tearefull fyres, and that the plague to be grievous that yeare. And yett shall there be store of Peason, Beanes, and Clutches, & plentie of hearbes and floures. Also there shall be plentie of Hony, Dyle, and wines that yeare.

And when the firste of Januarie beginneth on the Wednesday, then shall the Winter be warme and calme, the Spring wette, and disposed to sicknesses, the Sommer hote, and the Haruest vnprofitable, so that long sicknesses are to be feared, & the Quarten Ague with them. Also yong men shall then be sick, and in ieopardie of death, and women the like, & in sundrie places shall happen a famine, with a greate bryte of strange newes. And there is also to be feared the grievous passions of the heart, the ydlenesse of minde, or rather distraught, and the diseases of the matrice in women. And yett the plentie of Dyle and Wines, but the scarcitie of cozne to be doubted that yeare.

And if the beginning of Januarie be on Thursdave, then shall the Winter be calme, & temperate, the Spring windie, & Sommer vnseasonable, and the Haruest drie, so that cozne and victualles shall then be deare, yett store of Dyle and Wines that yeare. And there is a likelihode of lighte sicknesses

to happen vnto the common people, but more dangerous sicknesses vnto the richer sorte. And the blearednesse of eyes also is to be feared, and that yong children shall then die, battels procured, and the sedition of souldiours, and an earthquake to be doubted that yeare. Also great talke of newes shall be in things and Princes houses, and greate perills also be doubted to happen vnto Princes in that yeare.

And if the firste daye of Januarie happen on Fridaye, then shall the Winter be verie cold and drie, the Spring boysterous and wette, the Sommer temperate, the Haruest more wette than drie. So that the blearednesse, and other diseases with the filthinesse of matter running in the eyes is to be feared, and the pinne or web is likewise to be doubted to happen in that yeare. And yong children shall ther die, and a likelihoode that yong women shall be allured vnto a wanton loue, thzoughe the flatterie and great perswasions of men. Also a suspition of battels to ensue in that yeare, and the plague and robberies then to happen. Also the plentie of fruites is then promised, althoughe muche haile fall that yeare.

And if the beginning of Januarie happen on Saterdaye, then the Winter shall be windie and vnstable, the Spring windie, and vncoustant of weather, the sommer vnstable with manye tempestes, and the Haruest drie: So that victuals shall be deare, small store of corne, and little fruite that yeare. Also sheepe shall not well prosper that yeare, and a likelihoode then of the death of swine, and that wood shall be deare.

Also there shall be manye tertian agues, and diuers other diseases fayning among men, so that olde men shall then die, and a likelihoode of the death of many men, by the plague. Also many fires shall be hearde of, little store of wines, Oyle, and Honey, yet plentie of hay that yeare.

And if Neweyeaes night (being the first night of Januarie) shall be calme and cleare, as withoute winde and raine, then doeth the same promise a prosperous yeare following.

And if in the same night the winde happen to blowe out of the

the East, then doth the same signifie the death of cattell to ensue that yeare.

And if the same night the winde happen to blowe out of the West, then a likelyhood of the death of Kings or Princes to ensue that yeare.

And if in the same night the wind happen to blow out of the South, then doth the same signifie the death of manye persons to ensue that yeare.

And if in the same night the winde happen to blow out of the North, then doth the same signifie the small yelde of all fruites of the earth that yeare.

¶ Howe to foreknowe the state of the yeare, by the only rising of the dogge starre, out of the husbandrie of Diophanes. Cap.iii.

ABOUT the knowledge of this, there is to be considered and noted, in what signe the Moone shall then be, at the first appearance of the dogge starre aboue the Earth in our Realme of England, which generally to be reckened is about the seauenth day of Iuly.

And nowe if the Moone runne then in the signe Aries, at the first appearance of the dog starre, it doth after declare the death of Cattell and much raine. So that small yelde of corne yet plentie of Dyle shal be that yeare.

And if the Moone runne then in the signe Taurus, at the first appearance of the dog starre, then doth it signifie much raine, fogges and mistes that shal harme much that yeare.

And if the Moone runne then in the signe Gemini, at the first appearance of the dogge starre, it doth after promise the plentie of corne and wine and all other fruites of the earth, a yet diseased yeare, and to be doubted that a King shal then dye, and that rebellion also shall be moued that yeare.

And if the Moone run the in the signe Cancer at the first appearance of the dog starre, aboue the earth, it doth after threaten drought, with the great scarcitie of corne to ensue in yere:

And if the Moone runne then in the signe Leo at the first sight of the dogge starre, it after promieth the plentie both of wines and Oyle, and the good cheape of corne and other victuals that yeare. And yet to be feared the commotions of the common people, and slaughter of the same to ensue, with an earthquake, and land floudes to happen in that yeare.

And if the Moone runne then in the signe Virgo, at the first appearance of the dogge star, it after signifieth the plentie of flowers, and the greate store of fruites of the earth, and the cheapenesse also of cattell. And yet to be feared, that women shal be deliuered befoze their time in that yeare.

And if the Moone runne then in the signe Libra, at the first appearance of the dogge starre, it after declareth the stirring vp of a king, and a commotion of the common people. And yet the plentie of fruites of the trees, although there be a likelihood of the scarcitie of corne and oyle in that yeare.

And if the Moone runne then in the signe Scorpio, at the first appearance of the dogge starre, it after declareth the commotion of priests, the destruction of Bees, and an infectiue aire to ensue that yeare.

And if the Moone runne then in the signe Sagitarius, at the first sight of the dogge starre aboue the earth, it after signifieth a raynie yeare, yet fruitfull, and the plentie of corne, and loy among men. And yet is to be feared the death of cattell, & the multitude of foules in that yeare.

And if the Moone runne then in the signe Capricornus at the first appearance of the dogge star aboue the earth, it after declareth the commotion of souldiours, and greate store of raine, and yet the plentie of corne, wines and Oyle, and al other thinges good cheape in that yeare.

And if the Moone run then in the signe Aquarius, at the first appearance of the dog star aboue the earth, it after signifieth of a most likelihood, the death of a king or Prince, the scarcitie of corne, and the plentie of such flies with the long hinder legges, that burne corne by the touching of it, And yet little raine, with the plague to ensue in that yeare.

And

And if the Moone runne then in the signe Biscas, at the first appearaunce of the dogge starre aboue the earth, it after declareth much raine, and the death of byrdes. And yet doth it promise a sufficient store, & laudable plentifulnesse, both of Wines, Oyle, and corne, but manye persons shall be diseased in that yeare.

¶ Other profitable instructions, right necessarie for husbandmen to know. Cap. iiii.

And first if the hozne of the Ramme (nere his eare) be bozed, the same doeth tame his fiercenesse. And if his right gentour be trusted vp before he goeth to couer the Ewe, then doeth he beget an Ewe lambe. And if the left be thus straited trusted vp, and the righte hanging downe, then doeth he begette a hēe lambe.

And if in the time of the South wind blowing, the Ram doth then couer the Ewe, he doth after beget a shēe lambe.

And if when the North wind bloweth the Ram doth then couer the Ewe, doth after beget a hēe lambe. And of what colour also the vaines shal be vnder the tongue of the Ewe, suche shal the colour of the skinne of the lambe be, for if she hath black vaines vnder the tong, then the Lambe shall be blacke of skin, and if white vaines vnder the tong, then shall she haue a white lambe: and if of diuerse colours, then the lambe shal be of diuerse colours on the skin. And that antient Isaac writeth, that Rams in their yong yeares be of lesser moysture and clammynesse, than be the sucking lambs, and this is, through their age and qualittie then ruling.

And therefore the fleshe of yong weathers be better, and in gender better bloud than the sucking lambes.

And this is hēere spoken of such Rammes as be gelded, in that their moysture and hotenesse is then temperate.

And the wethers ouer old are to be refused in eating, in that they be then cold and drie without moysture, and they smallye nourish and hardly digest.

And

Also herte and other fleshe of beastes being olde, be euill to eate, through the coldenesse and drynesse, and through the lacke of the moisture and hotnesse. And when the olde Rams in their time to couer the Ewe, be sooner moued thereto, than the yong Rammes, it doeth then signifie a good and profitable season to ensue in that yeare, and a good season and prosperous also for sheepe. But if in the proper time to couer the Ewe, the yong Rammes be sooner prouoked thereto than the olde Rams, then doeth followe the greate rotte or murreyne of sheepe in that yeare.

Also Ewes by drinkeing of water conceiue the sooner wyth Lambe and of this the sheepeheardes giue them salte to eate, wherby the moze drinkeing of water, they may so conceiue with yong, and they are also by that meanes preserved the healthfuller. And in the Haruest also some sheapheardes giue them to eate Gourdes seasoned with salt to encrease their milke, for by that meanes both the milke moze plentifully issue forth of their teates, and the Ewes do sooner conceiue. Also in Sommer is the colde Northerly water good for them, and in the Haruest the warme Southerly water good for them.

Also to let sheepe feede in the ende of the day, is greatlye commended: and if they also stirre but little abrode, the same is thought very profitable, in that the muche iourneying, and labouring of them hither and thither, doth so cause the to become leane. Also the skilful sheepeheardes knowe, whiche sheepe will well endure the sharp winter, and which not, in that vpon some of the sheepes backes (as they affirme) Ase maye be founde, and vpon other some none at al. So that by this may be learned, that such sheepe which be weake, a man can hardely plucke off the Ase from their backes. And further learne, that those sheepe whiche haue long tayles, maye hardlier abide the sharpe colde winter, than those hauing broade tayles: and the sheepe also curled of haire (do in like sorte) hardlier endure the bitter winter.

And besides these, the thunder greatly harmeth sheepe, especially if anye Ewe being with yong happeneth to be alone at
that

that instant, for that she then with lambe, doeth of the fearefull
hoyle of the thunder, deliuer hir yong one before the time. And
for a speciall remedie to saue that vntimely casting of Lambes
at such times, the skilfull sheepehearde haue found out, that y
only drining of many Ewes together, is a sure safegard to the
fo anoyde this occasion. Besides, if you will remoue the rot of
sheepe, that they die no more, then take the belly of a Ram, and
seeth the same in wine and water together, which after mire w
water, and glue the same generallie to all the sheepe to drinke,
for by that meanes shall they againe be recovered of their dis-
ease. And here learne, that the fleshe of sheepe, and other foure
footed beastes, which commonly feede in moyste ground, is euill
to feede vpon, for the harde digestion of the same. Also learne,
that the good sheepe are knowen by their age, as being neyther
to olde, nor yet as Lambes: and by the forme also they are
knowen, if so be you finde them large of body.

And they besides haue much and soft wool, and both thicke &
long heare, especially on the nape, and about the necke, and the
like haire on the belly. And both the health & sicknesse of sheepe
may be knowen, if so be any openeth their eyes, and findeth the
vaines within to be redde and small, which vndoubtedly decla-
reth them to be sound and good: but if those vaines shal appeare
white, or redde, and bigge, then those sheepe are diseased and
weake.

And if the sheepe go lustily and boldly by the waye, it is a
sure token that they be sound, but sadly and hanging
down the heade, then be they diseased. These hither
to of the yearely coniectures, and other tales,
only meete for husbandmen to vnder-
stand and know.

(*)

Kk.

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